

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL
RAILROAD AND FINANCIAL NEWSPAPER.

SOUTHERN MILLS' ADVANTAGES.

Mr. T. Jefferson Coolidge, treasurer of the Amoskeag Mills, of New Hampshire, in an interview in Boston after a trip South, dilated upon the advantages of Southern cotton mills in comparison with Northern ones. Here are a few of his succinct statements:

"Nearly all the Southern mills are prosperous."

"The Southern mills get some advantages from cheaper coal and cheaper cotton, but the wage question is the greatest factor in their favor."

"Southern mills, having been built later, are superior to the average Northern mill."

"The best Southern operatives turn out just as much work as the Northern operatives, and are just as intelligent."

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VOL. XXXIII
No. 3.

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Baltimore, February 11, 1898.

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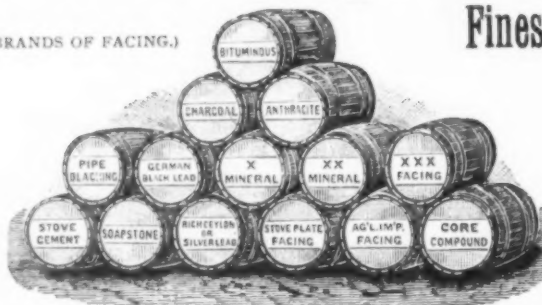
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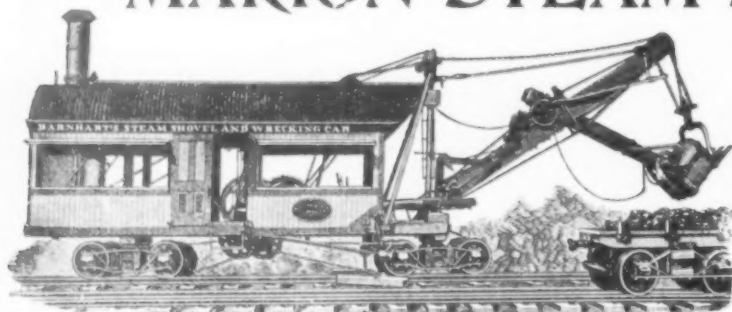
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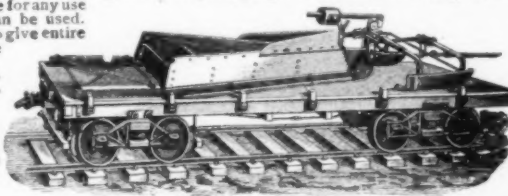
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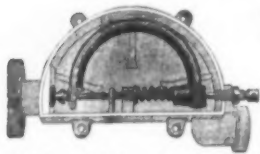
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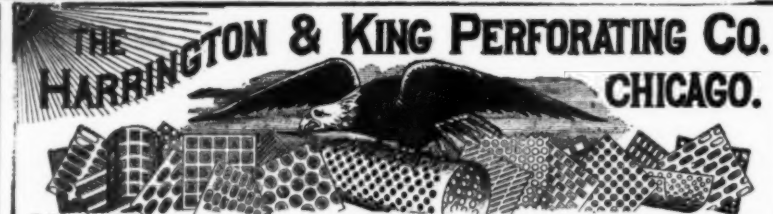


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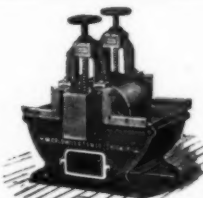


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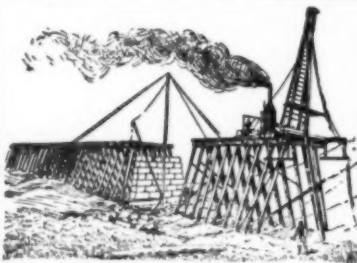
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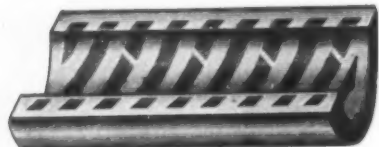
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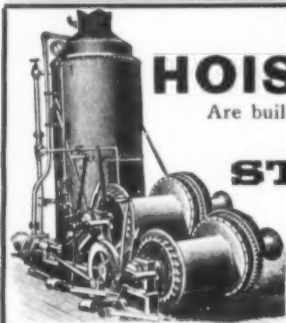
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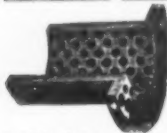
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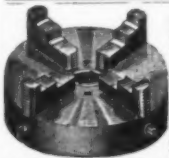
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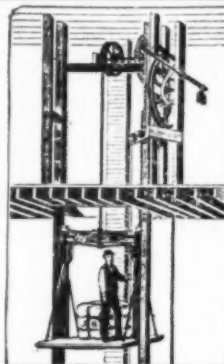
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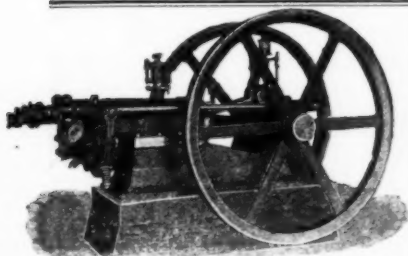


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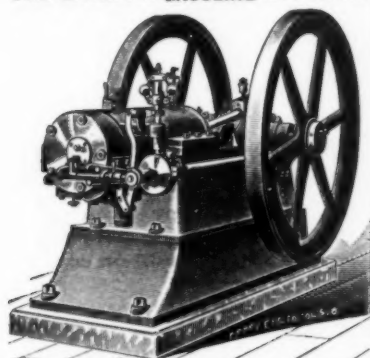
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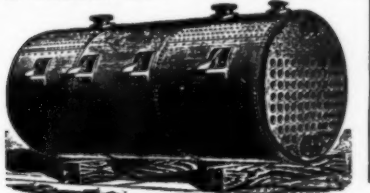
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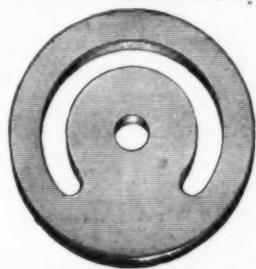
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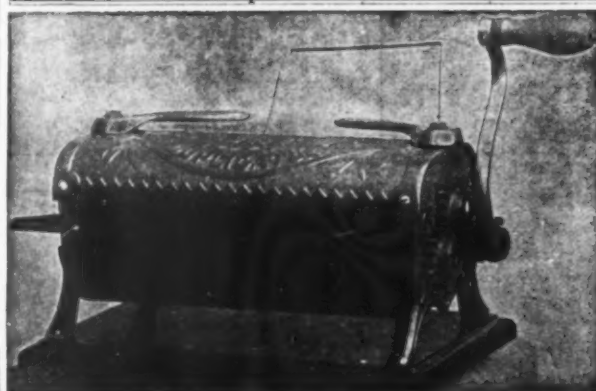
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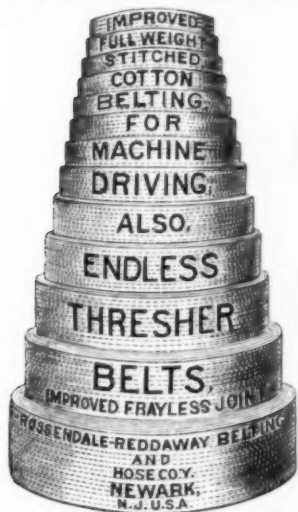


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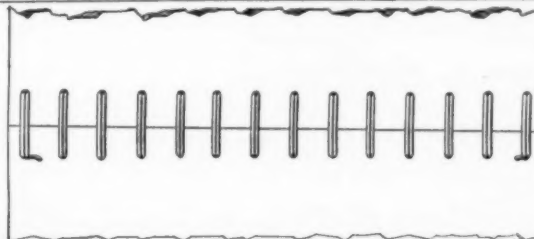
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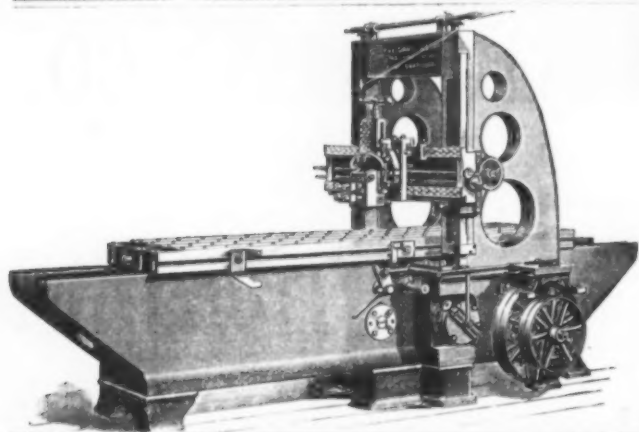
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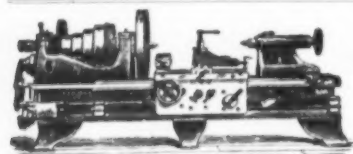


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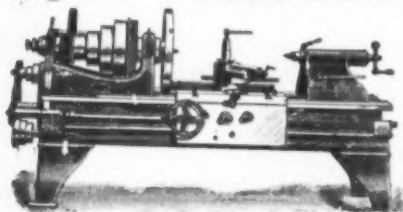
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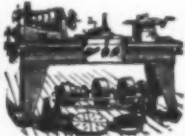
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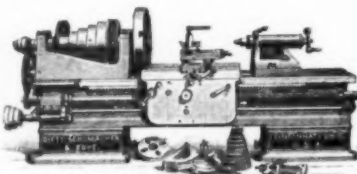
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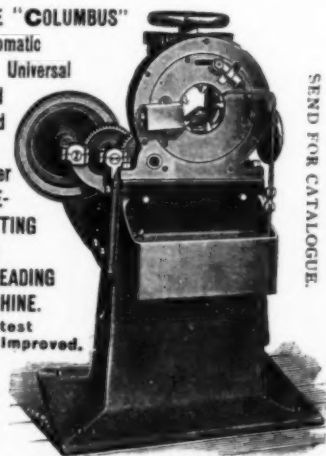
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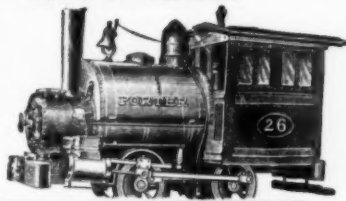
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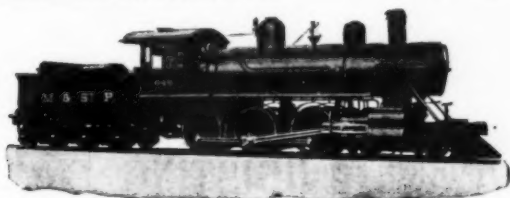
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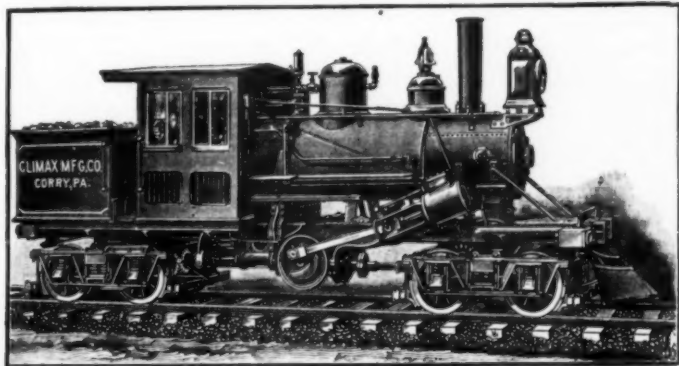
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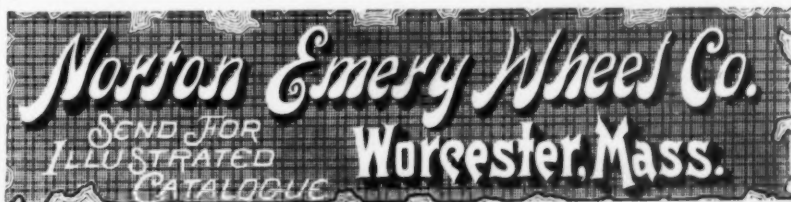
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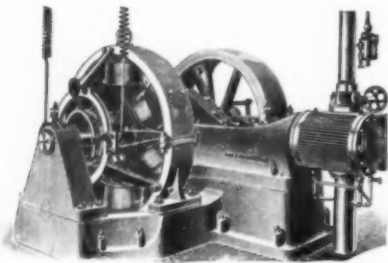
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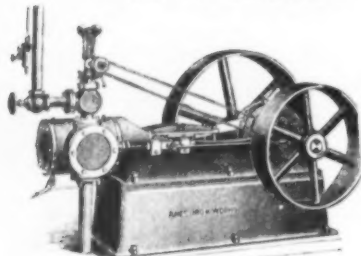
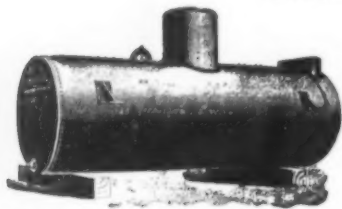
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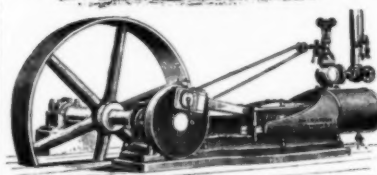
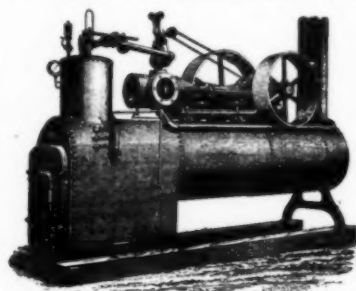
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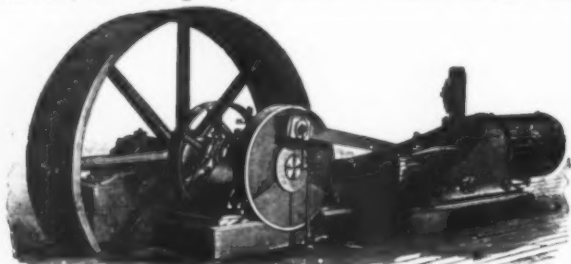
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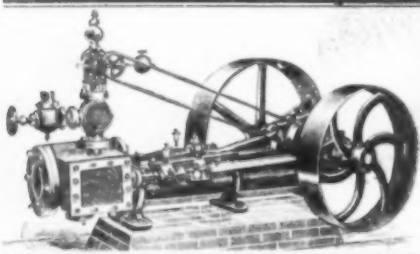
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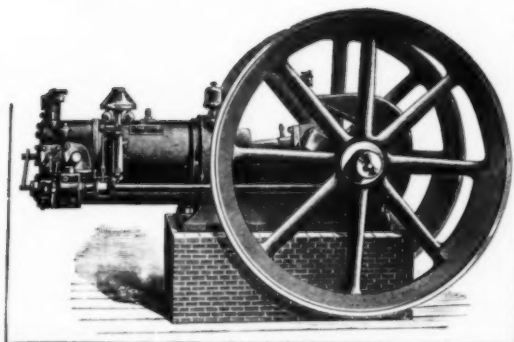
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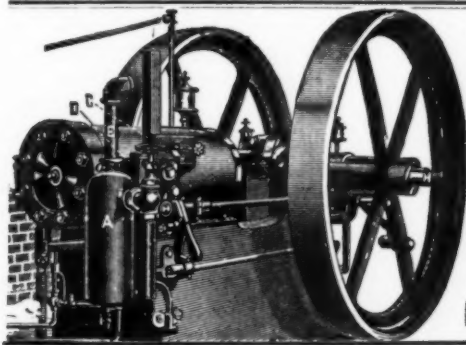
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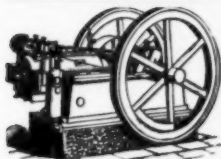
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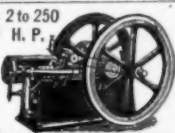
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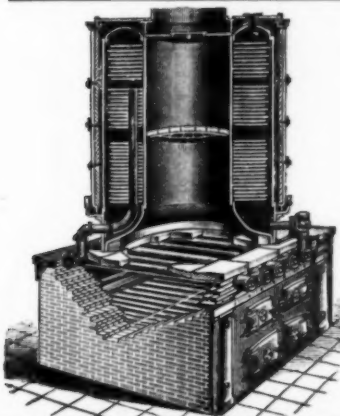
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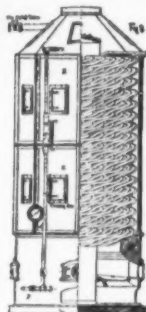
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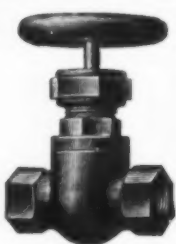
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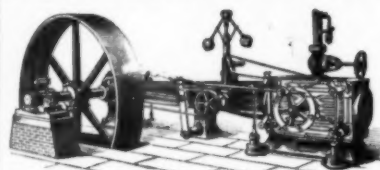
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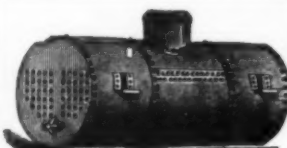
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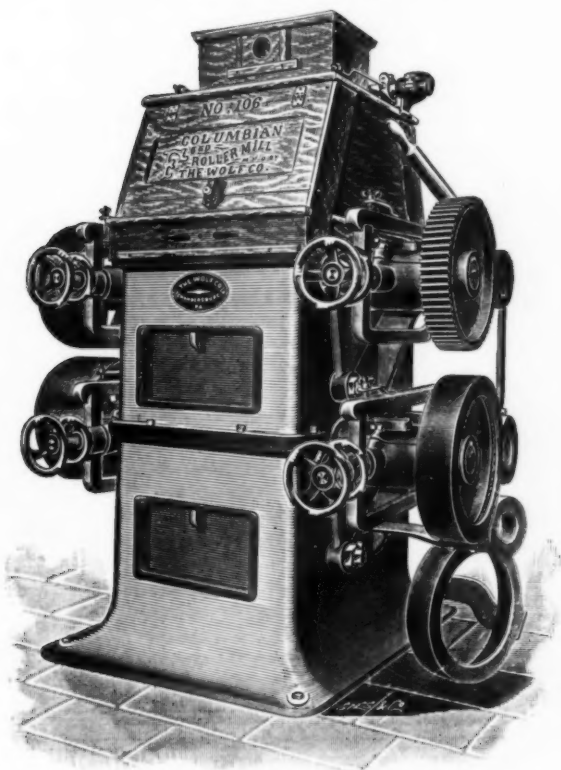


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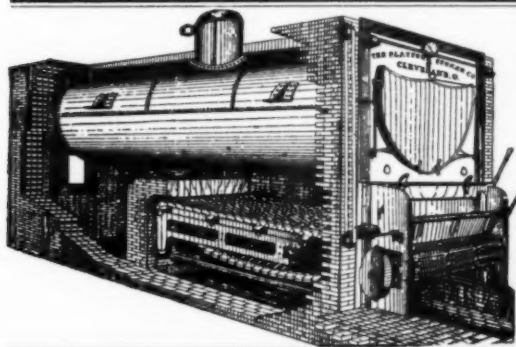
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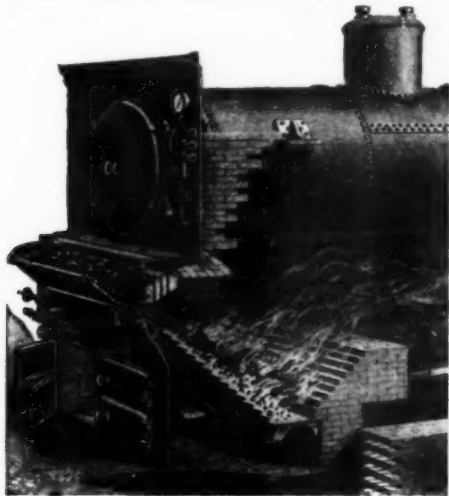
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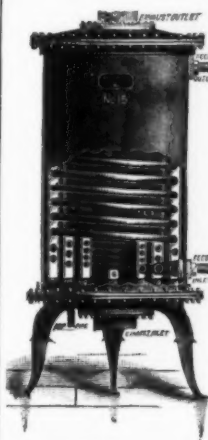
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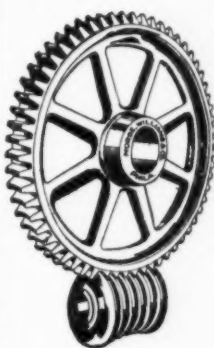
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Cigar and cigar wks.....	10	100	50,000	100,000
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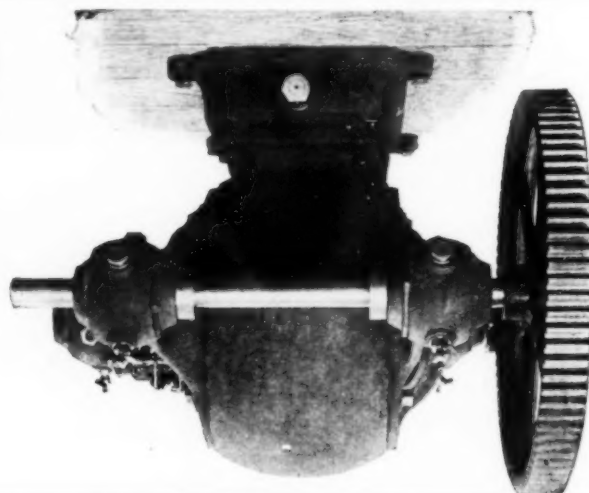
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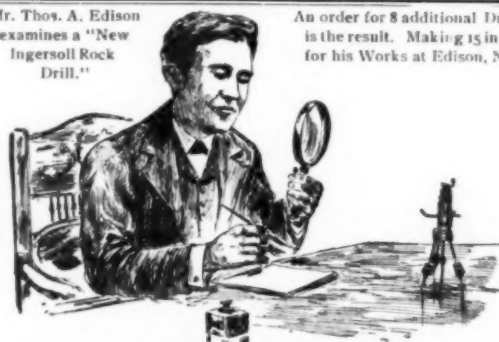
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Manufacturers' Record.

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The Usual Result.

S. W. Bogy, Corsicana, Texas, recently advertised for some one to join local people in building a cotton mill. Writing under date of February 2, he says:

I have had very good results from my two weeks' ad. in the Manufacturers' Record and enclose postoffice money order covering cost of same.

Major J. F. Hanson, of the Bibb Manufacturing Co., of Macon, Ga., in a letter to the Manufacturers' Record, referring to the position taken by us as to the injury to the South by populist agitation, says:

I am simply amazed that your editorial, based upon grounds that are absolutely correct and so thoroughly sound in its advice to our people, should have provoked adverse criticism. The fact that it did is an evidence of existing conditions that rendered the article necessary in the first place. I can only say that I not only reiterate, but would underscore my public approval of this editorial.

The resources of the Southern States are being more rapidly developed of recent years, so much so that there are those who speak of the South as destined to rank in wealth and the arts of civilization with the North, but that can never be. The main theater of civilization and progress will continue to be in the North, and the men who are to have the leading part in molding the affairs of this nation will mostly come from north of the fortieth parallel. And since the North is to set the pace for the nation, we should be duly impressed with the responsibilities implied in that fact. What fashion of civilization are we going to rear on this Continent? If America is another name for opportunity, it is also another name for responsibility.—Midland Christian Advocate.

There is a bit of dogmatism refreshing in its verdency and cocksureness. Its author must have been reading some of the productions of Mulhall, which circulate in some quarters under the guise of statistics. We would not interrupt him in the enjoyment of his ignorant delight, but, without presenting him with figures known to every man of observation, we merely suggest that he will not have to live a hundred years to discover how woefully mistaken he was in penning such unadulterated rubbish.

NEW ENGLANDERS' OPPORTUNITY.

Mill owners and investors have been hearing from their own representatives during several months of the many advantages possessed by the South over New England as a site for cotton factories. They have brought out the facts so clearly and repeatedly that there is little else to be said without repetition in elaboration of differences of conditions in the two sections. But those who are turning their thought Southward may, perhaps, not realize thoroughly the fact that in many localities a warm welcome is awaiting them. The movement at Atlanta to bring about inducements for the greater investment of capital in Georgia is typical of many communities in the South. They want industries. They will confer advantages not to be had in other parts of the country to secure them. They can offer, in particular, low taxes or no taxes, material to run the machinery and material to be used in the machinery close at hand, and a supply of contented labor, which have been described generally. Men designing to build new mills, or those having an established trade who want branch ones, cannot go amiss in following the example of some of their brethren and establishing themselves in the South.

Here is an opportunity for New Englanders which comes but once in a generation. If they do not seize it others will, and then, instead of self-congratulation, regret will be their portion.

On the Upward Move.

As we go to press there is assembled at Atlanta a body of earnest men determined to place their State in the van of the industrial advance of the South. There is a spirit of activity abroad in that section which indicates that it is preparing for a development which has never before been equalled. This week's gathering of Georgians is at once a manifestation of the all-pervading spirit of preparation, and a promise of rich fulfillment.

Atlanta has given many evidences of its ability to take the tide at its flood. It is pre-eminent as an initiator of progressive ideas. Its reputation for that does not prevent it from recognizing advantages which other communities may have, or from attempting to duplicate them. Therefore, it is not surprising that the Chamber of Commerce called a convention for the purpose of crystalizing public sentiment in favor of a constitutional modification that will place Georgia upon an equal footing with other States. The purpose was well set forth in the call, which said:

Georgia needs more factories. We are marketing 80 per cent. of our surplus product as raw material, and other States are reaping the benefit of its manufacture into merchantable commodities. Raw material is increased in value more than 100 per cent. by manufacture. Georgia should get the benefit of this added value. The cost of manufacture is largely represented by wages, and 90 per cent. of all the money paid as wages must be spent immediately for food, clothing and other necessities of life. Thus local producers and traders are benefited. In the item of cotton alone Georgia sells 800,000 bales every year to be manufactured beyond her borders. The tremendous sum of \$8,000,000 is paid out in wages for the manufacture of this cotton. If this pay-roll was made and paid in Georgia, our producers and traders would get the benefit of 90 per cent. of the amount—more than \$7,000,000 annually. * * * Other States may legally offer inducements that are prohibited by our State constitution. This handicap upon Georgia is turning away millions of dollars every year. Money that would come to Georgia upon equal terms is now being invested in neighboring States. The attractive inducement offered by other States is exemption from municipal taxation for a stated period. The constitution of Georgia prohibits such exemption, and until this feature of our constitution is changed Georgia must battle upon unequal terms for the upbuilding of her manufacturing interests.

Certain Georgia communities, it is true, are offering such inducements. But their legality has been questioned, and the purpose of the convention is to dissipate erroneous ideas about such exemptions and to induce legislation that will make them legal. About 250 delegates are in attendance, appointed by mayors and trade organizations throughout the State. The body is unusually strong in its personnel, and there can be no mistake about the result of its deliberations.

Atlanta has partners in this upward move. Trade organizations in Richmond, Montgomery, Wilmington, Norfolk, Nashville, Houston, Chattanooga, New Orleans and other cities have shown more than usual aggressiveness, and the Southern press generally has been energetically proclaiming the opportunity for the South to attract capital for investment in industries, railroads and commerce.

This agitation is particularly gratifying to the Manufacturers' Record, which sees the enlarging of conditions for which it has labored during fifteen years. We hope the Atlanta meeting will soon have its heart's desire, and that every other community in the South may be led to discard every impediment to its healthy normal growth.

We notice that in 1860 New York State had very nearly as much banking capital as the whole South had. It had \$111,441,320, against the South's \$117,000,000. Massachusetts came next with \$64,519,200. The distribution of money has been always very unequal in this land of the free.—Wilmington Messenger.

New York combined commerce, manufactures and agriculture, while the South devoted its attention almost wholly to agriculture; it was natural, therefore, that the banking capital

should center where the volume of business was the greatest. Sterile New England, without any natural advantages, was forced to put forth untiring energy in order to live, and thus developed its marvelous wealth, while nature was so lavish with the South that living could be made more easily than elsewhere, and so in olden times the people were contented to take life more easily than was possible in New England. Ceaseless activity and energy, forced by circumstances, made New England and New York enormously rich, while the South enjoyed the pleasures of a more peaceful life without the great accumulation of wealth. And most that the South did have in 1860 was gone by 1865.

A Hint for the South.

About four years ago the Manufacturers' Record was instrumental in bringing about a tour of inspection of Southern cotton-mill districts by five leading cotton manufacturers of New England, all members of the Arkwright Club. After the trip we were permitted to announce that several of the members of the party would build large cotton mills in the South as an outcome of their investigations. The first mill to be built by any one of this party was the Indian Head Cotton Mills, at Cordova, Ala., which has just been completed at a cost of about \$600,000. Mr. Arthur Amory, one of the members of the party, having carried through this enterprise. Other mills will follow later on.

Commenting on this mill the Boston Journal says:

Reckless party organs, loud-mouthed politicians and labor agitators who are leading our New England cotton operatives to their ruin by proclaiming that Southern competition is a "myth" can profitably pause in their denunciation of "capitalistic greed" long enough to read a suggestive little press dispatch from Birmingham, Ala.

This dispatch announces the starting of the machinery of the Indian Head Cotton Mill at Cordova, Walker county, "on a tract of 600 acres, donated as an inducement for the location." This plant "was erected by Arthur Amory and some associates, all of Boston, at a cost of \$600,000." "Rich veins of coal open at the engine-room door, rendering the cost of fuel less than forty cents a ton. The mill has 25,000 spindles and 1000 looms, and will consume 10,000 bales of cotton a year."

These hard facts are a thunderous reply to the gabble of the demagogues. When Massachusetts men of Massachusetts families which have been identified for years with New England manufacturing go to Alabama to invest \$600,000 in a new cotton plant they go because there are imperative reasons for it. What are these reasons? They are precisely what the Journal has said they are. They are plainly stated in the dispatch which we are quoting.

First, there is a site, given outright, free from cost and free from taxes. Then "rich veins of coal open at the engine-room door," offering abundant fuel at a price actually less than the sea freight which our New England mills pay from Baltimore to Boston. There is just as good communication as Lowell, Manchester, Fall River and New Bedford have, for this Alabama plant is "on the main line of the Southern and Kansas City, Memphis & Birmingham Railroads." It "has white mountain farmers' families from which to draw the supply of labor"—intelligent, docile and enduring, an

ideal material for a manufacturing population. These stout mountaineers need only experience to put them on a par with the best New England mill help, and they will work 10 or 20 per cent. more hours for 30 per cent. lower wages.

Under these conditions is it strange that the Boston owners of this new Southern mill should announce that "a duplicate of the present plant is to be built in the near future?" Cannot our wage-earners see what this means? Cannot they realize that they must do their part to prevent the great industry on which their livelihood hangs from being drawn away from New England?

In an interview in the Birmingham Age-Herald in regard to this Cordova mill, Col. T. L. Long, who is interested in it, gives the following interesting facts:

In the first place, we have the only cotton factory in the world, or any other factory for that matter, which digs coal out of its back yard, so to speak, and shovels it in the furnaces for fifty cents a ton, or a trifle less. Indeed, we had to dig away a four-foot seam of coal in the excavations for the foundation of the mill. The coal used by the New England mills costs \$4 a ton, and for thirty tons used per day we save \$105 on coal alone.

Another fact is that the railroads will carry our manufactured goods to Boston cheaper per pound than they will the raw cotton, and also very much cheaper than they will bring New England goods to the South.

The greatest advantage, after all, that we possess over the Northern mills is the fact that we have cheap labor. The average operative in the New England mills gets \$1 per day, while we pay only sixty cents on an average. And yet our operatives live much better than they do in the North. The mildness of the climate and the cheapness of the necessities of life enable them to do this. Another good thing is that they are all white operatives. Ninety-five per cent. of the population of Winston county and of a number of surrounding counties is white. Probably three-fourths of our 800 operatives will be the natives of that county whom we shall train in the business. Alabama has five-cent cotton, while New England has six and one-quarter-cent cotton, another saving of 25 per cent.

And, lastly, and perhaps as important as any other advantage to be mentioned, the State of Alabama has exempted all cotton mills in the State from taxation for a period of ten years. As compared with the heavy taxes of New England, this is a splendid advantage. I see that several other States are endeavoring to pass like measures. Governor Johnston deserves much credit for getting this law passed in the last legislature.

What Mr. Arthur Amory has done would have been done by several others before this but for the agitation against corporations that started up a few years ago. No man in New England has had more to do with building mills in the South than Mr. Stephen Greene, of Lockwood, Greene & Co., of Boston, and in a letter to the Manufacturers' Record under date of January 26 he says:

In my judgment, the comparative freedom from such restrictive legislation twelve years ago enabled the South to secure a large amount of money from New England in the various industries, and particularly in the cotton manufacturing industry.

I believe it to be a fact that the tendency in the last two or three years toward restrictive legislation and laws of a populist character against corporations have had a direct tendency to make New England people more cautious and more unwilling to invest their money in the South.

I know from my own observation that where individuals and corporations have been seeking locations for manufacturing plants they have spent a great deal of time and careful investigation in determining upon locations in a State that would be least likely to favor legislation that would be detrimental to the interests of the corporation.

The mere statement of these facts is, we are sure, sufficient to arouse the people of the South to determine that capital shall not be afraid to come South, and that every needed guarantee shall be given that the demagogue shall no longer delay industrial development by his work. The South has been remarkably free from unwise

labor laws, as compared with New England, and had it been equally as free from the agitation against corporations it would have been in an ideal condition to secure heavy investments of outside money. New England people, harassed by labor legislation that has made it almost impossible to operate their mills except at a great disadvantage, have looked with envy upon the harmonious relations existing between the Southern cotton mills and their employees. But persistent populist agitation in some States created a fear in many people that investments would not be safe in the South. Just or unjust, this fear has existed, and it is because of this that the Manufacturers' Record has appealed to the people of the South to stop the political demagogues' populist work and give their strength and moral support to the honest legislators and public officials who are seeking to build up rather than to tear down. Everywhere throughout the South this appeal is being heeded, and trade organizations, leading business men, the newspapers, daily and weekly, with few exceptions, and such leaders as Gen. Stephen D. Lee of Mississippi, ex-Governor Northern of Georgia, Governor John-Corkle and Governor Atkinson of West Virginia and many others are seeking to awaken throughout the South a widespread interest in industrial development and in creating a public sentiment that will give to outside investors an absolute assurance of safety.

Mr. Fink's Faith in the People.

Mr. Henry Fink, president of the Norfolk & Western Railway Co., in a letter to the Manufacturers' Record, pays a well-deserved compliment to the people of Virginia, claiming that while some of the bills introduced at the legislature against railroads give color to the dispatch published in a recent issue of the Norfolk Virginian, he is satisfied that the people themselves do not favor such legislation. He says:

I have read the Manufacturers' Record of February 4, and desire to express my appreciation of and thanks for the good work you are doing.

In the article headed "What the Railroads Have Done for the South" you refer to the following dispatch from Richmond to the Norfolk Virginian:

"It is quite evident that the railroad corporations will receive few, if any, favors at the hands of this legislature. The house is very decidedly an anti-corporation body. It is quite certain that Mr. Saunders's bill to require railroad companies to fence their tracks will be passed. Someone remarked at the capital today that the threat made in the last presidential campaign that the railroads should suffer for the part President Ingalls, of the Chesapeake & Ohio, took in the Virginia canvass against Mr. Bryan would be carried out."

I was a resident of Virginia for more than thirty years, and I claim to know the people of that State fairly well. While some of the bills introduced at the present session of the legislature would seem to give color to the statement contained in the above dispatch to the Norfolk Virginian, I know that the people of that State are too intelligent, honest and fair-minded to favor any legislation oppressing the railroads, that have done so much in aiding the development of the great resources of their State, and are still engaged in that work.

This is in line with what the Manufacturers' Record has always claimed not only for Virginia, but for the whole South. The people are "too intelligent, honest and fair-minded" to favor unwise legislation, but through their failure to protest as vigorously as they ought to against such legislation the demagogue is able to do much harm by offering such bills and sometimes securing their enactment.

Time for Good People to Act.

If all the scandals and musses and rumors of repudiations of bonds and farces and harangues over railroad matters now going on and filling our State papers are not enough to disgust and nauseate the honest people of North Carolina, they have certainly dropped into a comatose state that forebodes no good. The effect of all this babble and confusion is bringing the State into ridicule and distrust among outsiders. Is it not time for the honest and virtuous element of our people to set their houses in order and right these wrongs—correct these abuses and bring order out of the chaos to which we are tending? It does seem so. And they cannot begin too soon. Sentinels upon the watch towers have sounded the alarm. It is time for the good people to heed the warning.—Durham (N. C.) Sun.

The Manufacturers' Record has been criticised because it sounded the warning and urged the people of the South to stop the work of political demagogues, but we have not seen any criticisms of these vigorous statements of the Durham Sun, the Richmond Times, the Chattanooga Times and many others, that, taking up our suggestion, have gone much further in denouncing the evils of the demagogue's work.

The Durham Sun may well rally the good people of that State—a State noted for the integrity of its people, for its wonderful advantages and for its great progress, and yet a State which is in danger of being seriously injured by the work of a few politicians. How it is being injured the following, from the Charlotte News, may indicate:

Mr. G. W. Hinshaw, president of the proposed Stone Mountain Railroad, tells a Raleigh newspaper that, but for the bond repudiation allowed by the recent decision of the Supreme Court, work would have commenced on his road this spring. Now he cannot tell when it will begin. Foreign capital is afraid to invest in North Carolina enterprises, he says. Stanley county's repudiation of its bonds is beginning to bear fruit. North Carolina cannot afford to be known as a dishonest State. "Honesty is the best policy."

All honor to the people of North Carolina who have opposed the action of these politicians. The Asheville Gazette says:

"This county is not in the 'green goods' swindling business, and its honest people are not offering rewards for the discovery of a trick that will prove its honest obligations 'nudum pactum.'"

This is indeed true, but commenting on it the Charlotte Observer adds:

We are truly prepared to believe this, and yet the county commissioners of Buncombe won their repudiation suit before Judge Norwood yesterday, and the sins of the commissioners will be visited upon the people, the honest and dishonest alike.

There is the whole thing in a nutshell. As any State is more or less injured by the bad action of any county, so the whole South is injured by unwise laws or populist agitation in any Southern State.

With untiring zeal the Manufacturers' Record has for fifteen years upheld the South and presented its claims to the world. It has sought to prove that no other country in the world had equal advantages, and so recognizing all the evils of populist and anti-corporation agitation in other sections, it has urged the South to avoid similar mistakes, that it might be possible to claim for it not only every natural advantage, but every requirement needed to protect investors in order that the manufacturers, the railroad builders, the capitalists of the country, might feel that to the extent that the South surpassed all other sections in natural resources, it surpassed all others in protection to life and property. For this

a few Southern papers have persistently sought to misrepresent and absolutely misstate what we have said. The people of the South are with us, and that is what we are working for.

Competition with Europe.

Early in January Mr. James Bryce, of the English Parliament, fell into the strain of pessimism regarding competition of American goods, which seems to be favored at present by European statesmen. He said that he had heard of large orders going to America for electrical plants, of a large order placed in the United States for steel pipes at 30 per cent. less than it could be taken in England, and of American bicycles pushing those of European make. That Mr. Bryce has reason for his gloomy views is demonstrated by an elaborate report made to the State Department by Frank H. Mason, United States consul at Frankfurt, Germany, upon American competition in Europe. He points out that the year 1897 has enforced recognition of the truth that in several important lines of manufacture, notably in iron and steel, the scepter of economical production, combined with the payment of the highest wages to labor, has passed from the Old World to the New.

Naturally, this revolution has not been without its effect upon Europe, and Consul Mason deals at length with Germany to indicate the general policy that is pursued. The most significant sign he finds is the rapidly increasing popularity of American machinery and tools. This is due to a desire to make German manufacturers more capable and their home market eventually independent of imported manufactures. He instances pig iron as an illustration of the mode of competition on the part of those who will not yet acknowledge the facts, and says:

There is now, for instance, in Germany a definite demand for American pig iron. Some has been actually imported from the Southern States, and its quality found satisfactory by the foundry men in Silesia. But the report of this fact was coupled, as a palliative, with the published theory that the quality of Southern iron could not remain uniform, because a leading iron company there had dismissed its chemists and would operate its furnaces in future by the hit-or-miss methods of former times. The simple fact is that pig iron of almost any specified grade can be made in the Western and Southern States cheaper than in any part of Germany, and the market here is one which our ironmasters may well cultivate with all diligence and enterprise.

Nevertheless, Germany is receiving many valuable lessons from America in the importance of small things in practical mechanics and technology, and Mr. Mason draws this wise conclusion:

From all that can be foreseen, it would appear that competition in Germany will sharpen and become more determined as processes are improved and the whole economy of production brought more and more nearly upon equal terms. The contest will be one between natural resources, the inventive capacity to economize labor, reduce freights, save waste of material, and, above all, the ability to skillfully sell surplus products in foreign markets. In all these, except the last, Americans are acknowledged masters. When they learn and act unitedly upon the knowledge that foreign trade must be found, developed, and maintained by the same means that have been so effectively employed at home—by the persistent personal efforts of competent salesmen, showing the goods in presence of the customer and offering them to him in the weights, values and measures and upon terms of sale and payment that prevail in foreign markets—there need be no fear of the result.

All of which goes to prove that the competition of the United States with European nations is no hurrah busi-

ness for the former. The sooner that is thoroughly realized, and the sooner the suggestions of Consul Mason are adopted, the better it will be for all the interests of this country.

For what the legislature did not do as to corporations the State of Tennessee is to be congratulated. It demonstrates that the sentiment of Tennessee is against the demagogues, and subsequent legislatures will find less difficulty in counteracting their work.

The New Orleans States is preparing to take a practical advantage of the Mardi Gras festivities. It will issue on that occasion an edition devoted to the industrial life of New Orleans in all its phases. The results of such a publication will be inestimable.

Government by Commission.

By Thomas P. Grasty.

In a discussion of the proposition to give to the interstate commerce commission the power to fix railroad freight and passenger rates, the Staunton (Va.) Spectator and Vindicator (edited by a dyed-in-wool, free-silver democrat) very pertinently asks, Why confine government by commission to the railroads? If it be right in principle, why not extend it to furnaces and factories, to mining and commercial corporations—in short, to every branch of business?

If this suggestion could be carried out what a harvest it would bring to "the boys in the trenches," who have waited so long and patiently for a chance to serve their country (for a consideration)—what a splendid opportunity to combine service to country with condign punishment to soulless corporations! For we should soon have not merely a few railroad commissions, but hundreds of other commissions, State and interstate, to say nothing of the thousands of city and county commissions, which would be necessary in order to regulate everything that needs regulation. We should have everywhere a mercantile commission to regulate the stores; a landlords' commission to regulate rents; and, as there are a great many people who want to buy live stock and corn and wheat, even fowls and butter and eggs at lower prices than the farmers are willing to take, we should have an agricultural commission to regulate the prices of produce.

If the taxpayers should raise a howl about being mulcted so heavily to provide salaries of all the members of all these commissions, there would no doubt be found plenty of men to serve for smaller stipends than those originally fixed by the legislatures; for, would not there be found individuals and corporations ready and willing to augment the commissioners' salaries by substantial contributions in consideration of the privilege of doing business in their own sweet way?

And so we see that universal "government by commission," immeasurably more expensive, if not more oppressive, than "government by injunction," is the logical outcome of the pending proposition to enable one commission to confiscate at will the property of any railroad company in the United States whose line may, peradventure, be so located as to be incapable of earning more than operating expenses if its rates be reduced by one jot or tittle.

While any arbitrary reduction of rates to the point of yielding only operating expenses would be out and out confiscation, as is clearly shown in the answer of the Southern Railway in the pending proposition of the North Carolina railroad

commission to reduce rates in that State, yet under mere temporary confiscation there is the redeeming consolation that since you can't "fool all the people all the time," there will soon or late occur a reaction in public sentiment, when common honesty will demand a restoration of all properties thus temporarily taken away from their lawful owners. Infamously un-American as is such a thing as confiscation of property, yet the certainty that the prevailing anti-corporation craze will be succeeded by an era of fair play renders it less deplorable than the consequences that would follow such reduction in rates as would mean to some roads either instant bankruptcy or total abandonment. In cases of this kind those who have invested their savings in the securities of the lines affected would be robbed, under process of law, more cruelly than were the victims of Robin Hood or Jesse James.

If all the people in the United States could be induced to read the statement just referred to, i. e., the answer of the Southern Railway to the contemplated reduction of rates in North Carolina, it would awake ninety-nine out of every hundred honest minds to a realization of the outrage which it is proposed to inflict upon the men and women who, relying implicitly on fair play, have put their money into railroad stocks and bonds. If this statement could be circulated all over the Union it would not only put a speedy quietus on the proposition for Congress to clothe the interstate commerce commission with confiscatory powers, but would cause a halt in the high-handed proceedings of some of the members of State railway commissions, who, through ignorance, or through a desire for popular approval, are doing incalculable injury to the people they are presumed to serve.

PROGRESSIVENESS OF HOUSTON.

Its Citizens Alert to Advancing Its Interests.

[Special Cor. Manufacturers' Record.]

Houston, Texas, February 7.

There is a settled conviction in the minds of several furniture manufacturers that Houston is peculiarly adapted to the branch of industry, and while your correspondent is not at this time in a position to give names, the parties who are investigating the subject are not only experienced men, but they have the financial ability to make the undertaking a success.

The Houston Newcomers' Association, mention of which was made in the Manufacturers' Record of last week, is growing like a green bay tree. This association now comprises members from thirty-seven States and Territories. The newcomer must be either a resident or property-holder of Houston or Harris county and must have become such within the past seven years. This organization illustrates how general has been the immigration in this direction during the past few years.

Large parties of homeseekers are coming to the coast country from Missouri, Kansas, Nebraska and other Western States. During the past few days at least ten different parties from the States mentioned have called in a body at the Business League.

The International & Great Northern Railroad, a part of the Missouri Pacific, has tendered to the deep-water committee of Houston a special car from Houston to Washington and return, with the compliments of the road. The delegation will leave within a few days to appear before the committee on rivers and harbors in favor of an appropriation with

which to build a ship channel twenty-five feet deep from this city to the jetties at the mouth of Galveston bay.

Interest is constantly upon the increase as regards the representation of Texas at the Transmississippi and International Exposition. A meeting of vice-presidents from the several senatorial districts of the State gathered at Dallas last week. The attendance was large and great interest and enthusiasm was shown. Vice-President S. J. T. Johnson, who represents the State at large, will reach Omaha today and will make an effort to secure 5000 feet of space for this State. The local Houston committee met today and decided to get to work at once and raise the money necessary to fittingly represent this city.

The large packing-houses of the country are falling in line with the action taken by the Armour's in making Houston headquarters for the State.

The vegetable-growers near Houston, as well as those of the coast country in general, are perfecting practical organizations, which means that they will ship several hundred carloads of vegetables to Northern markets this winter and early spring, at a time when such things bring a good price.

Too Much Paternalism.

M. D. Monserrate, vice-president and general manager San Antonio & Aransas Pass Railway Co., San Antonio, Texas, in writing to the Manufacturers' Record about the articles in recent issues in opposition to the plan for giving the interstate commerce commission absolute rate-making powers over all railroads without any appeal even to the Supreme Court, says:

"I submitted these articles to our general freight agent, Mr. E. J. Martin, for his views, so that I might incorporate them in mine, but as his reply covers the ground I deem it unnecessary to add thereto. Mr. Martin writes as follows:

"The articles from the Manufacturers' Record, opposing the giving of the rate-making powers to the interstate commerce commission, are able ones.

"It is a pity that such arguments are not of sufficient interest to the great mass of people to justify the daily press of the country in reproducing them.

"I cannot imagine how any commission can intelligently make the rates for the traffic of a country so large as ours and with such widely different interests and conditions as we have in different sections. Take fifty of the best traffic men in the United States, put them on this commission, and, if honest men, they will within three months be forced to confess their absolute inability to handle the question—it is too big a job.

"The wonderful development of our country in the last fifty years has been largely the result of the efforts of independent lines of railroads to build up the sections served by them, regardless of the interest of any other part of the country, and the people will shortly find that enforced departure from this system will bring them to grief.

"Tariffs ground out by the machinery of a national commission would bring about this departure and throw the trade of the country into chaos. We are suffering now from too much paternal government, both State and national, and I believe that any extension of it will militate against the interests of the people.

"To put the revenues of the railroads of the country into the hands of men not interested in them and whose acts could not be reviewed by the courts would be the most glaring instance of paternalism possible to conceive."

"With which I fully concur."

PROSPERITY'S SIGNS.

The Steady Increase in Bank Clearings, Railroad Activity and the Production of Pig Iron and Steel Rails.

[From Baltimore Daily News.]

Mr. Richard H. Edmonds, editor of the Manufacturers' Record of this city, in an interview today gave some striking facts as to the general increase in business throughout the country. Mr. Edmonds said:

"It ought to be a matter of gratification that 1897 did not witness any sudden boom in business, because then we might naturally have looked for a decline. On the contrary, there was a gradual and steady upward movement, beginning early in the year and increasing toward the close. The beginning of the new year sees the improvements steadily expanding, and the indications promising for a very wide-reaching betterment of all business conditions. Facts without number could be presented bearing out these statements. A few figures taken from the annual reports of the commercial agencies and the statistics of trade organizations when grouped show that the improvement was really greater than is generally appreciated.

Increase in Bank Clearings.

"There is probably no better indication of the condition of business throughout the country than the bank clearings. Reports for 1897 show that the aggregate bank clearings for that year were \$57,400,000,000, against \$51,300,000,000 in 1896, a gain of \$6,000,000,000. In fact, the bank clearings for 1897 were the largest since the phenomenally busy year of 1892. This increase in bank clearings became more pronounced in the latter half of the year, and is now advancing at a much larger percentage than for the entire year, showing a steady expansion of business. During the last three weeks the gain as compared with the corresponding week of 1897 was 30.2 per cent.; for the week ending January 8 it was 39.4 per cent.; for the week ending January 15 it was 39.8 per cent. Should this rate continue during the year it would give us a total gain of nearly 40 per cent. over 1897.

"The railroads of the country during 1897 showed a steady and regular improvement in business, the gain, as in bank clearings, being more pronounced toward the latter part of the year. The Financial Chronicle shows that the total earnings of 133 railroad companies for twelve months ending December 31 and of sixty-eight roads for eleven months ending November 30, representing in the aggregate 150,000 miles of track, were \$1,037,000,000, an increase over 1896 of \$58,900,000. In 1896 thirty-four railroad companies, owning 5441 miles, went into the hands of receivers, while in 1897 only eighteen roads, representing 1551 miles, failed.

"In commercial failures there was likewise a heavy falling off in the number and in the aggregate of liabilities in 1897, as compared with 1896, the decrease in the number being over 2000, and the decrease in the aggregate liabilities being over \$90,000,000.

Pig Iron a Sure Barometer.

"Early in 1897 the production of pig iron, one of the surest barometers of trade conditions, commenced to increase, and steadily gained during the year, giving us for 1897 a total output of pig iron of 9,652,680 tons, an increase of over 1,000,000 tons compared with 1896—by far the largest production of pig iron in the history of the country. Even these figures, however, promise to be exceeded during 1898, as the furnaces of this country are

now turning out an aggregate of about 1,000,000 tons a month, indicating that during the present year our production of pig iron may possibly reach the unprecedented total of 12,000,000 tons.

"The foreign market for American iron and steel is rapidly widening, and the exports of pig iron and steel rails, as well as of locomotives and other finished products, are becoming factors of tremendous moment in the commercial history of the world, while Maryland, Pennsylvania and other steel-producing sections are shipping steel rails and locomotives and machinery in large quantities to almost every civilized country.

"Alabama is taking the lead in the exportation of pig iron, and the shipment from that State is limited only by the ability to secure ocean transportation to England and to the Continent, while shipments are even being made to Japan and other Eastern countries. Moreover, plans are practically matured for the building of one, and possibly two, great steel plants in Alabama, the success of the one established there in 1897 having demonstrated Alabama's ability to make steel as profitably as it is now making iron.

The Cotton-Mill Strikes.

"The cotton-mill situation in New England is not to be taken as in any way indicative of the general business conditions of the country. When it was seen some months ago that the cotton crop of this season would be an unusually large one, buyers of cotton goods, foreseeing the certainty of lower prices, held off from making purchases, and the mills in New England were compelled to carry their own stocks of manufactured goods. These goods were to a large extent made out of raw cotton bought at a higher price than present values. The New England mills have, therefore, been carrying a heavy stock of goods, while buyers have been holding off on account of this decline in the prices of the raw material, and out of this situation and local labor legislative questions have grown the strikes that have been made the excuse for so much pessimistic talk by a few public men.

"In the South all cotton mills are running on full time, and many of them running day and night. There is probably not a cotton mill in the South that has closed down or reduced the hours of labor or the wages of employees during the much-talked-of depression in cotton.

"Throughout the entire country there is a very decided tendency to take up new industrial and railroad enterprises, a condition that has not existed for the last four or five years to as great an extent as present indications promise.

"Contracts already made for steel rails indicate a busy season for all the steel-rail makers of the country, and the indications for railroad construction by companies entirely able to carry out their undertakings show that the new mileage for 1898 will be much larger than for any recent year.

"These are but a few of the facts that could be presented, the meaning of which cannot be questioned, that show how far we have already advanced on the road to prosperity. But one thing more is needed to give a sure foundation for a steadily expanding business and for general prosperity throughout all sections, and that is a better currency and banking system. The South and West especially need this, and until they get it there will be constant agitation and unrest. It behooves every man interested in the permanent prosperity of the country and in vastly increasing the purchasing power of the people of the agricultural districts to urge upon Congress the necessity of currency reform."

POWER FOR FACTORIES.

Desirable Mill Sites at Fredericksburg, Va.—Advantages Offered.

To anyone seeking a desirable locality for manufacturing, especially the textile industry, the city of Fredericksburg, Va., offers many opportunities. In fact, it has a combination of advantages which few communities in this country possess. Fredericksburg is located on the principal railroad trunk line between the Northern market and the South, being nearly midway between Washington and Richmond, Va. It is the only market for a section of the country ranging from thirty to fifty miles around it. It is the principal station on the Richmond, Fredericksburg & Potomac Railroad between Washington and Richmond, and is the stopping point for all of the through express trains of the Atlantic Coast Line and the Seaboard Air Line between New York and the heart of the South. The Potomac, Fredericksburg & Piedmont Railroad connects it with Orange C. H., Va., reaching the Southern and

has capacity to deliver on the banks of the river at Fredericksburg 4000 horse-power on an available head and fall of forty-six feet. The measurements taken by Mr. Chase show that the average flow of the river affords this amount of power. Of this less than 400 horse-power is used by the existing mills, leaving over 3600 available.

The formation of the river bank upon the site where the dam is located, is of such a character that the height of the structure could readily be increased to develop at least 2000 more horse-power, making in all 6000. It might be stated that the opportunities for constructing such work are the best, as at this point the granite formation is so hard that it will remain exposed for centuries to the action of the elements without any perceptible effect. The banks of the river are almost perpendicular, and the stone-work on either side can be readily fastened to a natural wall of the same material. The accompanying illustration shows the waterfall during a comparatively low stage of the river. At the time it was taken, however, it is esti-

water for the supply of the community, for such is its quality that it is unnecessary to use any process of purification or any other supply than that which has come through the canal in question. This is owing to the fact that above the falls the river is in its natural state and not polluted by drainage or refuse from factories or other plants. Among the mills utilizing the power from this source are the silk mill of Walter C. Stearns, which operates 12,000 spindles and employs about 110 people; the Washington Woolen Mills, of which John G. Melville is superintendent, one of the most important plants of this kind in the South, having nearly 1000 spindles and sixteen looms, and two flouring mills, having a daily capacity of nearly 300 barrels. The owner obtains an annual rental from these sources of \$2800, although less than 10 per cent. of the present power is now utilized. Also in operation in the city are a sumac mill, a foundry and machine works, a plow factory and a shoe factory, not including several smaller enterprises. It is calculated that the present dam would supply all the in-



VIEW OF THE FREDERICKSBURG WATER POWER.

Chesapeake & Ohio Railroad systems at this point. In addition to the railroad facilities, the Rappahannock river is navigable to the city, and steamboat lines are in operation direct to Baltimore by the way of the river and Chesapeake bay, also to Norfolk and Portsmouth, Va.

A feature which especially commends itself to manufacturers and industrial promoters is the abundance and excellence of the water-power which can be obtained. Under a charter from the legislature the entire water-power afforded by the falls of the Rappahannock river, two and one-half miles from Fredericksburg, on both sides of the river, has been acquired. The works were constructed in 1856-57, being designed and built by the experienced hydraulic engineer, John Chase, of Chicopee, Mass. The cost of the lands, water rights and works was very low compared with similar enterprises, because of the natural facilities of the location. The dam is on the same plan as that at Holyoke, Mass., and is firmly set on a natural rock formation. Its dimensions are: Length, 900 feet; height, eighteen feet. The abutments are of granite, the timbers of heart-pine, sawed one foot square. The main canal

mated between 350 and 400 horse-power was running over the dam. The permanent supply from the falls of the Rappahannock attracts much attention. The streams which feed it ramify in so many different directions that if rain falls over any portion of Central, Northern or Western Virginia much of the water finds its way to this river. Many of the largest streams in the country are supplied by branches which extend through a comparatively small area, and are consequently so low at times as to seriously affect the industries depending upon them for power, although at certain seasons of the year they may be at flood height and carry far more water than enough to supply the needs of the manufacturers. It is unnecessary to refer to the storage reservoirs in New England and elsewhere erected for the purpose of preserving the surplus water for use in the period when the river runs dry. In the case of the Rappahannock such reservoirs are entirely unnecessary, as its power can be depended upon every month in the year.

A canal two and one-half miles in length supplies several of the principal industries of the city, also furnishes

industries in the city combined and then have a surplus of fully 3000 horse-power. While an excellent opportunity is afforded to utilize it for generating an electric current which would far more than supply all the factories now in operation in and around the city, the water-power itself can be obtained at such a low price that an electric plant would have to be very economically constructed to offset the natural advantages at this point. There is, however, an opportunity for a street railroad to be operated by electric power, which would do a profitable business carrying passengers and freight between the mills, the railroads and the steamboat landings and traversing the principal streets of the city, which has a population of 5000.

While Fredericksburg would be an excellent location for a variety of interests, it seems especially suited for the textile branch, as already stated. Cotton can be obtained by rail direct from the North Carolina fields or by water by way of Norfolk and the Rappahannock river. Woolen manufacturers could obtain an abundant supply of raw material were they located at this point, as such a mill would increase the interest in sheep-raising.

ing among the farmers in the locality, who more than supply the existing mill. It has been found that the mulberry upon which the silkworm thrives can readily be grown within a short distance of the town, and with proper encouragement it is not impossible silk manufacturers could obtain a supply of material. Reliable white labor can be obtained among the people in the vicinity.

The water-power is entirely controlled by the Fredericksburg Water Power Co., Fireman's Building, Baltimore, Md., which, in addition to the canal referred to, has about fifty acres of property, most of which is admirably located for mill sites in case it is desired to use water-power alone. Fully twenty-five factories could be built along the canal already constructed at advantageous points. As to the canal itself, it can easily be made from seven to nine feet in depth, as desired, although at present it is not less than five feet at any point, the width at the bottom averaging sixty-six feet. It was originally a portion of the canal used for navigation to the edge of the Rappahannock and is constructed in a substantial manner. Extensive repairs have been required but once to either dam or canal. These were occasioned by an unusually high freshet.

The policy of the city is to treat manufacturers and all outside parties who desire to locate in Fredericksburg, very liberally. Most of the plants in the city are exempt from taxation, while to those who are in earnest about establishing business or manufacturing enterprises inducements would be offered in the way of free sites.

Leaving aside money considerations, however, it may be said that Fredericksburg is one of the most beautifully located towns in the country. The river at this point is very picturesque, with high bluffs running down to the water's edge, partially wooded, while here and there are to be seen imposing mansions, many of which were built in colonial days. The city has a number of educational institutions, including the College of Fredericksburg, churches of nearly all denominations, two newspapers and an excellent hotel. The people from a very large portion of Virginia obtain all their supplies from the city, and the large number of its mercantile establishments is especially notable.

Grain Elevators Advocated.

A correspondent of the Charlotte (N.C.) News, advocating more extensive wheat raising, suggests elevators at different points. He says: "In the breaking up of the old plantation system no provision was made for wheat culture. There is not one farm in five hundred that has sufficient floor room to protect more wheat than is now raised. Necessity, the mother of invention, invented for the Prairie States of the Northwest the grain elevator, which is as necessary in grain production as the grain drill, harvester and separator, in fact, all combined, if wheat is to be made one of our money crops. Hundreds of grain elevators are to be seen all over the Northwest, small ones at depots and some of enormous size at the railroad centers. Near the last are usually located the flour mills. With a grain elevator in Charlotte our farmers could take their wheat from the separator direct to it and either sell it or store it, receiving a certificate on which they could borrow the money they needed. It would bring the surplus wheat from the counties northwest and southwest of us, and it would bring flour mills that would find a market in the sand country to the east and south of us."

Better Banking Facilities Needed.

A correspondent of the New York Times, in discussing the need of currency reform, says:

"The Southern people have no silver mines, but, feeling the distress resulting from scarcity of currency, difficulty in obtaining loans, especially small loans, and excessive rates of interest, and failing to perceive the true cause and remedy, they accept silver monometallism (under a bimetallic label) much as a suffering invalid swallows the poisonous nostrums of a quack.

"Of course, the true remedy for the unfortunate conditions now prevailing at the South is an adequate banking system. Probably the best results could be obtained by the reconstruction of the national banking system, but, unfortunately, a deep and bitter antagonism to national banks is very prevalent at the South, and for political purposes such a feeling is just as effective whether it has any foundation or not. Can nothing, then, be done until the Senate succumbs to civilization?

"If the Fifty-third Congress had fulfilled the promise of the platform upon which it was elected and removed the 10 per cent. tax from the circulation of State banks, or, at least, reduced the tax to the same rates as those imposed upon national banks, the silver craze would never have grown to alarming proportions.

"Why should not the republicans do what the democrats promised, but failed to perform? Doubtless the clamor of 'wildcat' would be raised, but such clamor would be at least as senseless as the prejudice against national banks. The conditions which made it possible to float wildcat currency in ante-bellum days no longer exist. Besides, we have no right to assume that the Southern States would indulge in unsound banking. Before the war Louisiana had as sound a banking system as any State in the Union. Moreover, State bank notes could not be made legal tender; they must circulate upon their merits, and unless security and redemption were sufficiently provided for they would not be accepted at all beyond, nor long within, the State where they were issued.

"The agents of silver-mine owners in Congress would not be disposed to favor any measure intended to relieve the distress at the South, because that very distress is one of their best assets, but they would hardly dare to resist it openly, and even covert hostility, however disguised, would alienate their indispensable allies. Nor is it a consideration of small consequence that the republicans can do nothing more conducive to breaking up the political solidarity of the South and disarm Southern hostility to their party than to remove a burden which all Southerners (and not they alone) believe to be unjust, oppressive and unconstitutional."

The New Orleans Progressive Union, Limited, has been formed to promote and foster the prosperity of the city of New Orleans and State of Louisiana in every lawful way, and particularly by the creation of an organized working bureau, by the establishment of a permanent exhibit to induce the investment of capital, the introduction of manufacturing enterprises in the city and the encouragement of immigration from other States.

Mr. H. M. Flagler, who has done so much to build up the east coast of Florida by railroads, has bought, it is announced, for \$75,000 a site at Nassau, Providence, where he will build a mammoth hotel. Its construction will give employment to 1000 Americans.

COMMERCE.

This department is devoted to a record of the rapidly developing commerce of Southern ports.

FOR THE GULF TRADE.

Aid from the Kansas City, Pittsburg & Gulf Road.

A stream of products from Chicago's packing-houses has commenced to flow to Liverpool, Rotterdam, Amsterdam and other foreign ports through Kansas City, the Pittsburg & Gulf Railway and Port Arthur, on the Gulf of Mexico, says the Kansas City Times. Such a thing was never heard of before, and, in fact, was impossible before the building of the Pittsburg & Gulf Railway and the establishment of the line of export steamers at Sabine Pass to work in conjunction with the railroad. The Pittsburg & Gulf Railway contracted to carry thirty carloads of packing-house products from Chicago to Rotterdam. This is but the entering wedge in this business, and the Pittsburg & Gulf expects to haul immense quantities of this class of traffic from Chicago, Omaha and Kansas City. It has formed close traffic relations with the Chicago Great Western, and that road will handle the shipments between Chicago and Kansas City. From Omaha the stuff will be handled solely by the Pittsburg & Gulf. A fleet of eight steamers has been chartered by the Pittsburg & Gulf to handle the new traffic, and they will ply between Port Arthur and various European ports.

The Pittsburg & Gulf promises that the export rate from Chicago and Omaha will always be higher than from Kansas City, thus giving the packers of this city the advantage in rates to which their geographical position entitles them. In the past the Kansas City packers have been compelled to pay twenty-three and one-half cents per 100 pounds more than Chicago on export shipments through the Atlantic ports. The new route and rates made by the Pittsburg & Gulf will give Kansas City an advantage of from eight to fifteen cents over Chicago in getting to the sea. It practically reverses the old order of affairs, and this is why Chicago is alarmed at the situation.

The Pittsburg & Gulf has also contracted to carry two trainloads of agricultural implements from Deering, Ill., to Rotterdam by the way of Port Arthur. This is taking business right from the doors of Chicago, but the officials of the Pittsburg & Gulf are confident that they control the export situation and are certain that Port Arthur will become in a short time one of the leading export cities of the country.

Lumber at New Orleans.

A prominent lumber shipper is quoted by the New Orleans Picayune as saying that he would like to ship lumber from New Orleans's port all summer and intended to make arrangements to that end, but it would be much more successfully carried out if there were tracks built so that the lumber could be taken right from the car and loaded into the ship without rehandling it across the levee. A small addition to the cost of handling lumber is a very important thing, and if New Orleans could get the right sort of facilities so that extensive lumber shipments could be carried on it would give business all summer when there is a lull in cotton and grain shipments, and that would bring money and give work to many people who are not so busy in the summer, and also bring in more imports, as the ships would be coming for the lumber trade and would naturally bring something. The development of imports would help the

lumber business, as the ships would be more plentiful. Lumber can be shipped from that port, says the Picayune, just as successfully as from any other, but there ought to be a special arrangement of tracks and apparatus to make the handling cheap.

CHARLESTON WAS BENEFITED.

Work Done Last Year by Its Enterprising Freight Bureau.

The report of Manager John A. Smith, of the Charleston bureau of freight and transportation, for the year ended February 1 shows that a great deal of good work has been done for the city. Among the results the following are noted:

"There is no doubt that the establishment of the Charleston Transport Line received its inspiration from the South and West Grain and Trade Congress held here in April, 1896, and as a direct result of that congress we have seen in the last six months the commencement of an export business in grain, flour and other commodities through Charleston to foreign countries.

"Through correspondence had with the bureau in regard to the facilities of Charleston as a shipping point, and in other respects, the Dustonsmith Piano Factory, of Plattsburg, N. Y., was induced to locate its plant at Charleston about a year ago. This factory is a prosperous and growing industry and manufactures a first-class grade of pianos, for which ready sale is found throughout the Southeast. The factory employs about thirty skilled workmen, men of families, all of whom were brought here from the East and added to the population of Charleston. It needs only a visit to the factory to convince one that the men employed there are of the class that constitute the bone and sinew of all cities; they are mechanics of the highest order, and, therefore, necessarily, men of the best character. Through the addition of such people to her population must Charleston look for her real growth and prosperity. The success with which the factory is meeting will necessitate the continual addition to its force of employees.

"Largely through efforts of the freight bureau to enlarge the steamship service of Charleston the Clyde Steamship Co. established about fourteen months ago a direct line of steamers between Charleston and Boston. The service of this line now amounts to two steamers per week in each direction and often three. It has been of the greatest benefit in controlling business through this port and in developing its commerce. At one time, when there was a disposition on the part of the company to withdraw the Boston steamers, the bureau took the matter up actively with the management of the company and urged that the line be maintained, and also, through a circular letter, urged upon the merchants of Charleston to give to the line their full support and co-operation.

"The constant complaint from different shippers during the past year as to the great delay in transporting freight from Charleston to the upper part of the State caused the bureau to take the matter up with the initial lines at Charleston and the Southern Railway, particularly the latter, as it was believed that the cause of delay rested almost entirely with that company. The bureau has in the last sixty days had the assurance of the first vice-president of the Southern Railway that every effort would be made by his company to move freight from Charleston with the utmost dispatch. We believe that the work with the Southern Railway in this direction will prove effective."

Port Arthur's Elevator.

The Kansas City, Pittsburg & Gulf Railway Co. is preparing to award the contract for the construction of an immense grain elevator at Port Arthur, Texas. The elevator will be erected at the end of slip No. 3, on the water front, and will have a capacity of 700,000 bushels. It will be used for handling and storing export grain and will be finished by June 1. Conveyors will be placed on each side of the elevator for direct handling of the grain from cars. Where the grain is not to be stored it will be loaded direct from cars into the holds of ships at the export pier.

Work on the ship canal is to be pushed vigorously with three dredges this spring, and it is promised that there will be sixteen feet of water in the canal by next June, from Port Arthur to Sabine Pass. This depth will permit barks, schooners and a large percentage of ocean freighters to sail up to the docks at Port Arthur. Steamers drawing more than sixteen feet of water will be two-thirds of a cargo at the Port Arthur docks and the loading will be finished at the southern terminus of the canal by means of lighters. While the canal is being used in this manner the work of deepening it to twenty-five feet will be continued. Robert Gillham, general manager of the road, says that the largest ships afloat will be enabled to reach the Port Arthur docks by the end of the year. The canal is 183 feet wide at the top and eighty-three feet at the bottom.

Its Eyes Upon New Orleans.

Mr. Henry Doblin, agent of the Hamburg-American Line, while on a visit to New Orleans looking over the possibilities there for his steamship company, said: "We realize that New Orleans is rapidly becoming one of the leading shipping ports in the country, and it is the purpose of the Hamburg-American Line to get their share of the trade. As you may know, we do not pretend to do much passenger business, but as the grain shipments are increasing each year from this port, it is likely that something will have to be done by our company in order to get the Hamburg trade."

New Orleans Shipbuilding.

Mr. Stephen Roach, of the great firm of shipbuilders, believes in a navy-yard for New Orleans. He says:

"You have all the facilities here; you have the lumber and the coal convenient, and the labor is easy to get, and all you need is the money. Of course, it takes a great deal of money; it takes that for every enterprise, but why have a navy-yard and not a shipyard? Build American ships here; that is what you ought to do."

The Pensacola Elevator.

The new grain elevator of the Louisville & Nashville Railroad at Pensacola, Fla., has been completed. It has a capacity of 100,000 bushels, and will add to the importance of Pensacola as a port.

Jottings at the Ports.

In one day recently more than 16,000 tons of coal were loaded at Lambert's Point, Va.

Grain shipments in January from Galveston increased 364,235 bushels over the 1,025,388 bushels of January, 1897.

The Galveston Wharf Co. has elected H. F. Landes vice-president; George Sealy, president, and John E. Bailey, manager.

The harbor of Galveston, Texas, was recently visited by a party of business men from Kansas, who carefully exam-

ined the facilities for shipping from this port.

The British steamship *Matin* on her last voyage from Savannah carried 11,725 bales of cotton and twenty tons of cottonseed meal.

The trade edition of the Florida Mirror, of Fernandina, was devoted to an exploitation of the commercial advantages of that port.

Tampa, Fla., is making an effort to secure an appropriation for harbor improvements commensurate with the customs receipts there.

Cotton dealers of Alexandria, La., recently shipped 1400 bales of cotton to New Orleans for export purposes. Of this amount 1000 bales went to Havre, France, and the balance to Great Britain.

It is stated that nearly every vessel leaving New Orleans for Europe contains from 100 to 500 tons of Alabama iron for that market. Recently 300 tons were shipped to Trieste, Austria. Frequent exports are made to Holland and Italy.

The first test of the new Pensacola grain elevator was made by loading 25,000 bushels of corn on the Spanish steamship *Gracia*. The test was quite satisfactory, and the loading of grain here will be a feature of the city's export business.

The steamship *Merrimac* has been engaged to load a cargo of 4400 tons of steel rails at Baltimore for Tampico. The rails are intended for Mexican railroads and are from the plant of the Maryland Steel Co. at Sparrow's Point, near Baltimore.

The Galveston channel has attained a depth of twenty-eight feet. This is the report of the depth of water in the channel as reported by the corps of engineers, U. S. A., and compiled from the register of the tide gauge at Fort Point and the latest official survey.

The steamship *Haddon Hall* has arrived at Sabine Pass, Texas, and will load the largest cargo of cotton yet exported from this point. It will comprise 12,000 bales, most of which comes to the harbor by way of the Kansas City, Pittsburg & Gulf Railroad. The destination of the cotton is Liverpool.

A Birmingham dispatch is to the effect that the Howard-Harrison Iron Co. has succeeded in arranging for extensive shipments of its pipe to Great Britain. As readers of the Manufacturers' Record are aware, this company has been very successful in the foreign market, as well as in the Northern cities of this country.

The largest cargo of sugar ever taken from New Orleans in a sailing craft was loaded on the bark *Hiram Emery*, a Boston vessel, which was towed down the river. The vessel is bound for New York, consigned to Gustav A. Jahn & Co. The *Emery* has in her hold 4500 barrels of sugar, 1000 barrels of molasses and 500 barrels of rice.

The congressional sub-committee on commerce has recently made an inspection of the lower Mississippi river, with a view of ascertaining the work necessary to deepen the channel and for the maintenance of the levees. The committee will prepare an estimate on the amount of money required after making this inspection.

A dispatch from Mobile, Ala., states that during one day recently the steamships *Mobile*, *Ethiopia* and *Lovestakken* cleared with cotton cargoes aggregating 21,739 bales, and, in addition, they took 84,500 bushels of grain and 2410 tons of Alabama pig iron. The steamship *Beresford* also cleared with a full cargo of grain, amounting to 104,800 bushels.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

SERVING THE STATE.

Value of the Southern Railway to North Carolina.

In a recent article in the New York Sun it is shown that the railroads are the great disbursing agents of the country. Their daily pay-roll is about \$2,000,000, much of which goes to 500,000 employees, including 100,000 station men, 35,000 engineers, 40,000 firemen and helpers, 25,000 conductors and dispatchers, 65,000 trainmen, 30,000 machinists, 100,000 shopmen other than machinists, 20,000 telegraph operators and their helpers, 45,000 switchmen, flagmen and watchmen and 175,000 trackmen. Included in the expenditures noted by the Sun, which are more than \$100,000,000 in excess of the total expenditures of the United States government, and which do not embrace nearly \$250,000,000 paid in the form of interest upon railroad bonds or guaranteed stock and from \$80,000,000 to \$100,000,000 paid in the form of dividends to stockholders, is the annual expense of American railroads in maintaining the condition of their roads, \$75,000,000, besides \$35,000,000 for the purchase of rails, ties and sleepers and \$15,000,000 for the construction of new bridges. The railroads of the country spent last year for fences, signboards, signals and watch towers \$3,500,000, and for printing and advertising \$8,500,000.

The figures are not considered by those individuals whose main occupation seems to be the cultivation of hostility to railroads. But now and then facts are presented of an anti-demagogic nature. The citation, for instance, of the Southern Railway to show cause why the fares for the transportation of passengers over the lines in North Carolina should not be reduced gives that company the opportunity to make some truths known. From its sworn statement for the North Carolina railroad commission the following facts are derived:

It is rightly contended that "the history of the lines now constituting the Southern Railway system embraces facts and features abundantly proving that any arbitrary reduction of the revenue of those lines would be grossly unjust to the people who have invested their money in these properties in the State of North Carolina in affording its citizens modern transportation facilities.

"The object of the reorganization was to rehabilitate financially and physically properties which had decayed in the hands of insolvents, and to so cut down the fixed charges as to make probable the continued operation thereof without new bankruptcy. This was necessary, partially because the fixed charges formerly in effect were based upon high rates of interest which were current at an earlier date in the history of railroads in this country, and which could not be reduced pari passu with the gradual and unrelenting reduction of rates and revenue which all railroads have had to face, and which has been caused by general economic causes, as well as by the arbitrary action of the State, and partially by excessive railroad construction and competition and a widespread depression in all classes of business.

"Out of such conditions it was hoped that a consolidation of many weak lines in the hands of a single and efficient and economical management would result in saving a further loss of the investment already made.

"To this end the bonded indebtedness

of the several lines was reduced by nearly forty millions (\$40,000,000) of dollars.

"A considerable portion of these bonds represented cash which had been borrowed and expended for improvements upon the several lines of the Richmond & Danville system within the State of North Carolina, including the North Carolina Railroad, owned largely by the people of the State. It is well known how much the North Carolina Railroad was improved in physical condition under the Richmond & Danville lease. The improvements remained for the benefit of the patrons; but the money expended was lost to the security-holders, and these security-holders are among the stockholders of the Southern Railway Co."

In a comparison of the results of the operations of the Southern Railway as a whole it is shown that the tons of freight carried one mile in 1897 were 120,895,360 more than in 1891, while the earnings were \$1,143,902 less, the average rate per ton per mile having been reduced .189 cent. The passengers carried one mile were 25,083,795 less than in 1891, the earnings \$1,230,001 less and the average decrease in rate .277 cent per mile. Other figures show that in North Carolina "the volume of traffic, in proportion to the length of the line operated, is exceedingly small as compared with that of roads in other sections of the South or of the United States generally; that in proportion to the volume of traffic handled the average freight and passenger rates on the Southern's lines in North Carolina are lower than the rates on the other portions of its system, lower than the average rates on other railroads in the South and vastly lower than the average rates for all railroads in the United States. This is shown by the fact that the gross freight and passenger receipts and the net earnings per mile of road operated are much smaller on the Southern's lines in North Carolina than the averages upon roads elsewhere."

In spite of this the company has expended in North Carolina during the past three years more than \$650,000 in excess of what it would have been necessary to expend in order to maintain the property in the same or equally as good condition as when it was received. This represents chiefly the cost of new and modern shops at Salisbury, the placing of new and heavier steel rail in the main lines and new sidetracks and improvements along the line, made necessary in order that the increased traffic over the line to Norfolk might be properly handled. And it should not be overlooked that a large part of this sum has been expended upon the North Carolina Railroad, of which the State—that is, the people—owns three-fourths.

The conclusions from these statements are "that the rates of local passenger fare on the Southern Railway in the State of North Carolina are below the average in the United States, are fully as low, or lower, than in the neighboring States and as low as they are in any other State of equal density of population.

"That the facilities afforded to the citizens of North Carolina in respect to means of transit within the State are fully equal to, and in many instances far superior to, those enjoyed by other States of equal relative population.

"That these facilities have been largely improved in amount and are much superior in quality as compared with those enjoyed in years previous, and that they are provided for the people of North Carolina without due remuneration to the carrier, and, so far as the purely local facilities are concerned, are furnished at less than the actual cost to the railway company, and that the only means by which the Southern Railway Co. is able

to thus furnish them and look solely to the future for its possible return is the fact that consolidation into one large system has produced for the benefit of the company, as well as the citizens of North Carolina, a large volume of through interstate traffic sufficient to enable it to sustain temporarily the losses in connection with the local traffic.

"That the security-holders of the Southern Railway Co. are not now receiving, and at no time have received, a fair and reasonable return upon the cash investments made in the properties.

"That the lease for a long term of the North Carolina Railroad and the consolidation into the Southern system of the East Tennessee, Virginia & Georgia and other lines have been the means of sending through the State large volumes of traffic which theretofore passed over lines largely outside of the State.

"That this increased volume of traffic through the State has rendered necessary large cash expenditures upon the lines of the Southern Railway Co. in the State, including largely increased shop facilities, with a large permanent increase of population in connection therewith, large additional expenditures upon roadway, stations and bridges and a large increase in the permanent train forces constantly employed in the movement of the traffic.

"That under these improved conditions there has been a material reduction in the rates for passenger fares within the State since 1885, and that these rates are now as low as they can reasonably be made.

"That the loss to the Southern Railway Co. should further reduction be made, would be so serious as not only to interfere with future enlargement and improvement of the facilities now afforded, but to require their immediate curtailment and possibly permanent impairment to the great detriment of the material welfare and development of the State.

"That in view of the present earning capacity of the Southern Railway Co.'s lines in North Carolina, any reduction in passenger fares amounts practically to a confiscation of property represented by actual cash investments, for the reason that such reductions will preclude the possibility of a fair return upon these investments."

NEW SOUTHERN TRUNK LINE.

Indications of an Important Combination.

Recent developments in railroad and financial circles indicate that the plan which financiers generally believe is to be carried out by Messrs. J. P. Morgan & Co., of having a trunk line under one management, which will extend through the Southern States, beginning at New York and terminating at the Mississippi river, is progressing rapidly. As already stated in the Manufacturers' Record, the plan includes a combination of the Central Railroad of New Jersey, the Philadelphia & Reading, the Baltimore & Ohio between Philadelphia and Washington and the Southern system. The recent activity in Baltimore & Ohio stock is believed by experts in the market to mean that Messrs. Morgan & Co. are making arrangements to reorganize the system. It is understood that the State of Maryland may be induced, through the legislature, to sell its interest in the branch of the Baltimore & Ohio between Washington and Baltimore. This is supposed to be part of a plan to block the reorganization proceeding formulated by those who are opposed to Morgan & Co., and is regarded as an indication

that their opponents are aware of the activity of the latter firm.

A bill is pending in the Virginia legislature to build a railroad line from Petersburg to the Potomac river. The title of the company is the Petersburg, Richmond & Northern, and the incorporators include a number of New York parties. This line would parallel the Richmond, Fredericksburg & Potomac and connect with the Atlantic Coast Line at Petersburg, Va. The Richmond, Fredericksburg & Potomac road is closely associated with the Pennsylvania system and, in fact, forms its Southern extension to Richmond, connecting with the Pennsylvania at Quantico, Va. The new line would make the Morgan interests independent of the Pennsylvania, and by the construction of a bridge across the Potomac river it would be joined to the Baltimore & Ohio. Summed up, it would seem as if the South would soon have two north and south routes to the Atlantic seacoast cities by the way of Washington, and it is not improbable that this may be brought about within the next two years.

Kansas City's Interest.

In reply to a recent statement relative to the Kansas City, Pittsburg & Gulf Railroad and its relation to Kansas City, Mr. Robert Gillham, general manager, made a speech before the Kansas City Commercial Club, in which he said that the Pittsburg & Gulf was and would continue to be a Kansas City line, and would protect it in freight rates. He deplored the fact that the club had been delayed by washouts on its recent trip over the line, but said that no man could prevent or control the heavy rainstorms at this season of the year in Texas and Louisiana. He said that the Pittsburg & Gulf would take the products of Kansas City and the West abroad in its steamers, and would aid materially in building up the city's commercial and manufacturing business. The Pittsburg & Gulf contracted, he said, to carry thirty carloads of packing-house products from Chicago to Port Arthur for export. These shipments in the past have always gone to the Atlantic seaboard. Mr. Gillham stated that the Pittsburg & Gulf had been born in Kansas City, and that the merchants of the city need never fear where it will stand on the rate question. It was the policy of the road, he said, to make Kansas City the greatest and strongest market in the West.

Central Railway Sold.

The City Passenger Railroad Co. of Baltimore has secured a controlling interest in the Central Railway line of the same place. The latter extends across the city from east to west, with branches in the northeast and southeast sections. It was the first railroad line to be equipped with the trolley system in Baltimore, and represents about twenty-one miles. The company is capitalized at \$300,000, and has outstanding \$83,000 in 6 per cent. and \$1,017,000 in 5 per cent. bonds. The acquisition of the Central will give the City Passenger Company a total of ninety miles in the city and suburbs.

Louisville & Nashville.

The buoyancy of securities of the Louisville & Nashville in the New York market has attracted much attention to the condition of this system. Notwithstanding the fact that the road's business was affected to some extent by the quarantine restrictions of last year, together with the slow shipment of cotton, the freight movement is now said to be the largest in its history. Passenger traffic continues

below its normal level, but with the improvement in general conditions now in progress this, too, will shortly reflect betterment. Plans for the refunding of the road's bonded debt are well advanced, and these, when they become operative, will, by large reductions in interest charges, greatly enhance the value of the stock. For the latter it is claimed that over 2 per cent. already has been earned in the first six months of the fiscal year, and as the road is expected to do quite as well, or better, the remaining half-year, something more than 4 per cent. for the stock should be shown upon the year's business. Friends of the property anticipate a resumption of dividends.

Railroad Notes.

Robert Cannon has been elected president of the Albemarle & Chesapeake Canal Co., at Norfolk, Va.

B. H. Helm has been elected commissioner of the New Orleans Bureau of Freight and Transportation.

A freight bureau has been formed at Wilmington, N. C., with J. Allen Taylor, president, and M. W. Jacobi, secretary.

F. G. Lyons has been appointed soliciting freight agent for the Kansas City, Pittsburg & Gulf Railroad Co. at New Orleans.

Messrs. J. S. B. Thompson and others, representing the bondholders, have purchased the Hartwell Railroad, extending from Hartwell to Bowersville, in Hart county, Georgia, a distance of ten miles. The price paid was \$40,000.

The Tennessee & Cumberland River Railroad Co. has completed its line between the Louisville & Nashville Railroad and Bear Spring, Tenn., and has purchased rolling stock for its operation. John H. Lory is general manager.

A dispatch from Dallas, Texas, states that an Eastern syndicate has purchased the principal street railways in that city for \$1,000,000. The property comprises twenty-seven miles of line, most of which is operated by electric motors.

The Charleston & Western Carolina Railroad Co. announces that W. J. Craig is to be general passenger and freight agent under the new management, and J. W. Anderson, superintendent. This road is now a division of the Atlantic Coast Line.

Wisdom at Pensacola.

The Pensacola (Fla.) News appreciates the advantage of a union of commerce and manufactures. It says:

"The more Pensacola exports and imports the more money will there be to earn and spend and circulate. Our town will also become greater and more prosperous. By developing this trade we simultaneously develop our town and expand Pensacola's already large resources. Her commerce must grow, having every advantage on her side. By aiding nature somewhat Pensacola must rank high among towns of older growth. Our great mistake has been to allow Pensacola's natural advantages to do all the work entirely too long. We have in a way rested on our laurels as a city having enormous natural facilities, and have neglected to do these facilities full justice."

And again it presents the complement to this as follows:

"The missing link between Pensacola and greatness is more factories. We need many kinds of factories—large factories—factories that will give profitable employment to an army of skilled and unskilled workmen. Such industries would increase the population and multiply the wealth of the city."

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

SOUTHERN MILL CONDITIONS.

The Advantages Derived from Modern Machinery.

Mr. L. A. Coolidge, who did good work in describing Southern mill conditions for the Boston Journal, is writing on the same line for the New York World. From his letter dated Charlotte, N. C., the following is taken:

"An advantage of real importance is the newness of all these Southern mills. They are equipped with the most modern machinery throughout. The newest of the two Spartan mills was set in operation less than six months ago. It has 1400 Draper looms, and all the rest of the machinery is in keeping. One operative can handle sixteen of these looms. Any other loom requires at least one operative to eight machines, and the average is on operative to four or six. The Fall River mills cannot use the Draper loom. The labor union insists upon the old style of machinery, with its greater number of employees.

"The Spartan Mill is a good type of others in this region. The Clifton Mills are equipped throughout with Lowell machinery of the very highest grade. The Gaffney Mill is said to be the most completely-equipped establishment in the United States. At Union, Pelzer and Piedmont similar conditions prevail. At Columbia, the Columbia Manufacturing Co. runs a mill with 18,000 spindles, in which the machinery is controlled by electricity to an extent unequalled by any other manufacturing company in the world. Belting and shafting are reduced to a minimum. The smoothness, stillness and cleanliness manifest throughout are marvelous.

"It is not easy to estimate the advantage which this perfection of equipment gives. Some of the Southern manufacturers declare that with their new machinery alone they could maintain their superiority in cheapness of manufacture over the more antiquated plants of New England.

"If your New England mills want to compete with us," remarked the superintendent at Clifton, "the first thing they will have to do will be to throw their old traps out of the window and bring themselves up to date. The main trouble with the Yankees is in their old foggy ideas."

"This sounds queerly coming from a Southerner in criticism of Northern enterprise. The man who said it got his training in Fall River."

Mr. Coolidge takes the ground that the monumental advantage is cheap labor, and he explains it as follows:

"The character of the help employed is responsible for this difference in wages. The operatives without exception belong to the class which for generations have labored under the ignominious appellation of 'poor whites.' The name may have been appropriate once, but the introduction of manufacturing through the Piedmont region is making it less and less appropriate all the time. The 'poor whites,' who for years frequented the hills and mountains of the Carolinas, uneducated, indifferent to the outside world, indolent and shiftless, are display-

ing under new conditions just the traits which go to make up a tractable, intelligent, effective labor supply. They have grown tired of their solitary, cheerless, poverty-stricken existence on the hillside farms and have flocked into the mills just as the New England farmers flocked to the mills of Lowell and Lawrence fifty years ago. They are not so well educated as the early New England mill hands were, but they are shrewd and hardy, adaptable and delighted with the change. The smallest of wages is an improvement over anything they ever knew before. They are all earning small fortunes compared with what they earned before the cotton industry started up.

"Most of the farm land in this Piedmont region has been worked for time out of mind by 'crofters.' That is, the owners let them out to the farmers in return for half the proceeds. The result of this system has been that the farmer worked hard the year round, and at the end of that time had nothing to show for it except the fact that he had managed to support himself and his family. Money he never saw. When the mill started these people began to come down from the hills. They found that they could get their pay regularly, could live as cheaply as on the farm and have a little something left over at the end of each month. They live more comfortably than they ever lived before, they see just a little of the life of the world, they are attracted by the novelty, and they are content. Labor troubles, trades unions and organizations are unknown to them and are tabooed. They can live in this mild country, with its fertility of product and cheapness of food, at a rate which would be impossible further north.

"You would be surprised," says one Charlotte manufacturer, "to know how cheaply these people can live. I have in mind the case of an old woman in my employ, who lived on the outskirts of the town, and who earns seventy cents a day. She told me her entire living expenses for a week were sixty-five cents. That was the outside limit. Just think of it! Nine cents a day. And she was well and hearty."

"One will be impressed particularly with two things in visiting a Southern mill—first, the easy way in which the operatives go about their work and their comfortable air of familiarity with the men in charge; second, the extent to which children are employed. In a Northern mill the operatives seem to be a part of the machinery—to be more closely identified with wheels and shafting than with the world outside. In a Southern mill they are individualized. The men in charge of the mills know their hands by name and talk to them in a pleasantly informal and democratic way. Work is taken easily. There is time to stroll about, to sit down occasionally, to run to a window once in a while for a bit of light and air. You will see girls tending the speeders perched nonchalantly on boxes at the ends or the sides, clapping their heels as though they had nothing to do in the world. There is an air of general comfort everywhere, and this is one of the things which keeps the operatives contented with their meagre pay and long hours, and which puts strikes and agitation at a discount. These people have to be treated in a way peculiar to themselves, and that is one reason why Northern superintendents and overseers have not, as a rule, been successful in handling them. It would be a waste of time to try to handle the laborers in a Southern mill as they are handled further north. You will see 'schoolmarm' at work occasionally over the looms.

They are bright-eyed, clear-checked, quick, and, as a rule, decidedly pretty. They teach school back in the mountains three months in the year and work in the mills during vacation. They earn about seventy-five cents a day, and seem to like it. As a rule, the girls who work in the mills dress neatly in black, and a picturesque feature of their dress is a huge white sunbonnet, stiffly starched and glistening in the sun. The girls take great pride in these bonnets. The cloakrooms are white with them during the working hours.

"Every mill in the Piedmont section has a school for its operatives, and most of them have churches. A great deal of money has been spent in this way, and while the children work in the mills the manufacturers try to get them to go to school as much as they can and as much as the parents will permit.

"Most of the manufacturers, too, take pains to have the operatives' houses cleanly and healthful. They have gone to a good deal of trouble to put up the kind of cottages that will enable families to live in some kind of comfort and decency. Tenement-houses are unknown. The type of operatives' home is very much the same throughout the South. The houses are of wood and are isolated. They contain from four to six rooms, and are arranged to accommodate one or two families, according to their size. They are usually neatly painted or white-washed, sheathed inside and have open fireplaces. There is a porch in front, and every group of five or six cottages has an old-fashioned well which is a common supply. The owners of the Spartan Mills have built 300 of these cottages in an area of about seventy-five acres. They are perched on the side of a hill at a short distance from the mills, and arrangements are now being made to connect every one of them with the town water works, so that each family will have its own water supply. Throughout the Piedmont region the operatives' houses are usually on the hillsides, where the air and the drainage facilities are good."

Business at Natchez.

A correspondent at Natchez, Miss., writes: "The town has received to date (January 30) 72,000 bales of cotton, and total receipts for the season will probably be about 80,000 bales. This does not include some 20,000 bales reshipped at this point. The streets are lined with cotton awaiting removal to the compress."

Commenting upon the situation, the Democrat and Courier of Natchez says:

"The handling of 80,000 bales of cotton by the merchants, factors and business men of the town means an immense volume of trade, predicated upon this one product alone, and the receipts might have been very much greater had any particular efforts been made to bring greater quantities of the staple here, which was not the case. In fact, we are told that there was more or less of a disposition shown by some of our leading cotton men to discourage the shipment of the crop to Natchez because of the low prices prevailing, the lack of facilities for storage and handling, and for other reasons. Had there been a great demand for the staple, with the enhanced prices naturally following, the desire to buy more cotton would have been sought, and the greater would have been the degree of prosperity following. But as it is, even with five-cent cotton, the distribution of the proceeds of the 80,000 bales in all the channels of trade is bound to make itself felt in a material and beneficent way. The handling here of that magnificent amount of the staple, even at the low

quotations, would give us more actual money and trade than we used to receive when our receipts were but 30,000 bales, with the price at ten cents."

CURRENCY AND COTTON.

Some Interesting Statements from a Successful Manufacturer.

Hon. W. A. Courtenay, president of the Courtenay Manufacturing Co., a very successful cotton mill company at Newry, S. C., in an interview in the Columbia State, said:

"The real trouble of the cotton manufacturing industry is largely financial; this explains the general depression of business throughout the Union. The abnormal demand for wheat on foreign account gives large profits in this quarter, but iron interests are not prospering; prices are very low for pig and manufactured goods; cotton is very low, and this leads up to low prices for cotton goods. There were other results of the war between the States besides the surrender of the armies. The tendency then and now is to centralization, having Congress legislate for everything under the sun—from a monopoly of banking to a general labor law. As the South finds, from an experience of thirty years, that the very best place for her twelve States is in the Union, it may be as well to consider the Southland in its non-relation to the rest of the country.

"Financially, the South has no United States bonds, not that these securities are not held to be absolutely the best in the world, but the South can't afford to invest in 3 and 4 per cent. bonds, the latter at 28 per cent. premium. So when banking with note issues is limited to national banks, that is, to start a bank of \$100,000 you must invest \$128,000 for the privilege of using \$90,000 in currency, there are no takers in Dixie. We can't afford to do it. What is wanted is a general banking law, with the use of other credits than United States bonds, all under the comptroller of the currency, if possible, subdivided by States, with the purpose of creating a currency good everywhere, but kept at home as much as possible. If the greenbacks could be replaced with banknotes well secured and a fair proportion allowed in the Southern States, reducing interest rates to 6 or 7 per cent. and accommodating thousands of local wants, there would be a widespread change in Southern money opinions. The South in the olden time was a 'hard-money' community. Its cotton, tobacco, rice and naval stores were gold crops annually; give the South a chance and the public opinion will react to earlier views. The recent Southern cry for 'free silver' is only the despairing cry of a long-suffering people who are denied the use of their own assets for banking purposes. As to the cotton industry, it is more depressed than ever before known, but more North than South, and it may be well to look for real causes. The mixed and uncertain finances are, of course, a general source of disgust, but there are specific causes plainly in view. First, Fall River is gazetted as saying it costs 16.84 cents a pound to make print cloths. In direct reply, I assert that a South Carolina mill at this time is now making a very handsome profit at this alleged cost price, pays dividends and puts up a surplus. Second, another serious difficulty with the print-cloth mills in New England is the unmistakable changes in the dry goods trade of today. There has been for years an annual decline in the taking of narrow '7-yd' goods. But in the face of this easily-ascertained if not well-known fact, production is increased instead of diminished, and when

the surplus runs into millions of pieces Fall River cuts wages and goes on producing more surplus. From a strictly business point of view the sooner the print-cloth production is permanently reduced one-third to one-half, and looms run on other goods, the better it will be for New England and the whole cotton-mill business. So many print cloths are not now needed.

"As to Southern mills, no wages have been cut in Dixie, or likely to be. Profits have been reduced in the past three years, but there still remains good profits, dividends are earned and paid, and in nine cases out of ten a surplus remains.

"This is a water-power mill, and I find it costs very little annually for the water to run over the dam. A first consideration at Newry is the health of the operatives. No pains have been spared to secure this. A reservoir of 125,000 gallons of water is located on a hilltop 200 feet high; this runs a sewerage system to every cottage, as well as gives fire protection to mill, village, warehouses, etc. Kitchen and table scraps are put out in a pail from each cottage early every morning and removed to a farm, where it is fed to hogs. The village is thus kept as clean as a pin every day in the year. Of course, the health of the village is assured. Recently smallpox appeared at Atlanta and other cities, none near here, but the company forthwith had everyone in Newry vaccinated without cost to the 700 or 800 residents. A continuing interest is taken in all that relates to the well-being and comfort of the operatives, and I think we have here health and contentment in an unusual degree. The operatives here are all 'to the manner born.'"

"Yes, the South is in the cotton-mill business to stay. The South will survive. This prediction rests on her natural advantages and it carries no antagonism to New England interests. There is high skilled labor there, the opportunity to change products into fabrics far above print cloths, and the promise of ample remuneration in the future. But it looks as if print cloths have had their day of domination, that's all. It has been supposed that the Dingley tariff was framed to make this change; it certainly don't help print cloths."

THE INDIAN HEAD MILLS.

Mr. T. L. Long's Expectations for Northern Alabama.

At the formal opening of the Indian Head Mills at Cordova, Ala., Mr. T. L. Long, of Jasper, the principal speaker, said:

"The building of the Indian Head Cotton Mills of Alabama has broken the record for mill building in the South, so far as relates to time. Nine months ago, where now stands this grand and modern structure, together with its numerous and attractive tenements, stood a forest undisturbed since the first dawn of creation. Now look around, and behold the finest and best-equipped cotton mill south of the Potomac, representing an actual outlay of \$600,000, just ready to put in active operation 25,000 spindles driven by the cheapest and best steam coal on earth. There is not a spindle in the world today being driven by coal at fifty cents per ton, with the single exception of this plant. I challenge the world to show a similar example. Too much cannot be said in praise of these Eastern men who come among us with their money to develop this section. Today means a great deal for our county. It means that five-cent cotton is to be made into fifteen-cent cotton right here at our door. It means the commencement of the beginning and

that Alabama will become the Massachusetts of the South."

In a letter to the Manufacturers' Record dealing with the subject of the mill, Mr. Long says: "The North will continue to manufacture the finer fabrics for years to come, and, while there is no question that competition is largely in favor of the South, let us not forget the fact that it will take years for the South to acquire the skilled labor and machinery necessary to make the finer fabrics. * * * The outlook for this section is very bright, indeed. Coal is cheap, and over 90 per cent. of our population in this section of the State are white people—the most desirable laborers for cotton mills. This, with cheap coal, gives North Alabama advantages over any other section of the South. Again, a laborer can live on sixty cents a day in Alabama with more comfort than he can on \$1 in New England."

Hint in Textile Schools.

"The movement for the establishment of textile schools, a subject which has recently been brought before us here in Rhode Island, is making very remarkable progress in the South," says the Providence Journal. "In Georgia, the legislature having agreed to appropriate \$10,000 toward a textile school as a department of the State School of Technology if an equal amount were subscribed by private citizens, no difficulty has been found in raising the money, and the new school will be in operation in a few months. In Mississippi the governor has recommended an appropriation for a textile department of the State Agricultural and Mechanical College, and one branch of the legislature has already acted favorably on the suggestion, while there is little doubt that the other will follow its example. In North Carolina preparations for a textile school are now well advanced, and in South Carolina Clemson College will soon be strengthened by a textile department. These facts show plainly enough that the Southerners are fully awake to their new opportunities in manufacturing, and they should show to us in the North the increasing necessity of putting forth our very best efforts in competition."

Wool Added to Cotton.

"It is not unlikely to expect that the transfer of cotton manufacturing from New England to the South will ultimately be followed by a similar development and extension of the woolen industry," says the Wool Record. "The South and the Southwest are on the eve of a tremendous expansion in wool-growing. Texas is destined to rival Australia in the magnitude and quality of her wool product, and other Southern States are beginning to appreciate their splendid possibilities in sheep culture. With this certain increase in the production of raw material the South is bound sooner or later to become a great center of wool manufactories. No argument has been made as to why she should not make woolens as well as cotton goods. The success of the Southern cotton mills means the inevitable rise of woolen manufacturers in that section. The beginnings are already appearing, and they indicate the near approach of a time when the fleeces of Southern flocks will be woven in Southern factories as the cotton of Southern plantations is today."

Another \$100,000 Cotton Mill.

Mr. G. W. D. Harber, of Harmony Grove, Ga., who recently resigned the presidency of the Harmony Grove Cotton Mills, has organized a company to build the mill previously referred to as decided upon. The capital stock of the new en-

terprise will be \$100,000, and the mill will be erected at once. The product contemplated is different from that of the plant already established at Harmony Grove. It is probable that the mill will be operated by electricity generated by water-power obtained from the Tumbling Shoals, near Harmony Grove. Mr. W. T. Harber is also interested in this company with Mr. G. W. D. Harber. The latter is about to visit the New England shops to place orders for the machinery to be needed in his plant.

The Cotton Movement.

In his report for January 31 Secretary Henry G. Hester, of the New Orleans Cotton Exchange, summarizes the movement of cotton for the first five months of this season, compared with the same period a year ago. The amount of crop brought into sight was 8,637,427 bales, an increase of 1,510,966; stocks left over, 116,554 bales, a reduction of 221,995, and total supply, 8,753,981, an increase of 1,288,971. The exports were 4,694,261 bales, an increase of 494,297 bales. Northern spinners took 1,577,098 bales, an increase of 392,012, and Southern spinners 582,540, an increase of 37,265 bales.

To Study Cotton Mills.

A bill has been introduced in the Massachusetts senate by Mr. Williams, of Norfolk, providing for the appointment of a commission of five by the governor within thirty days, two of whom shall represent manufacturing interests and two of whom shall represent labor, to investigate the subject of cotton manufacturing in Massachusetts in comparison with the industry in other States.

Textile Notes.

A mill in Coventry, England, will make artificial silk from cotton waste.

A knitting mill will be established at Scotland Neck, N. C., by Mr. M. A. Smith.

The Sterling Cotton Mills, of Franklin, N. C., now operating 2080 spindles, will add 4000 spindles to its equipment.

The Harmony Grove Cotton Mills, of Harmony Grove, Ga., has declared a semi-annual dividend of 5 per cent., besides adding 4 per cent. to its surplus.

The Georgia Railroad, Land & Colonization Co. of Augusta, Ga., is corresponding with a Northern company relative to the establishment of a knitting mill at Belair, near Augusta.

The plant of the Elizabeth City Net & Twine Co., at Elizabeth City, N. C., was totally destroyed by fire last week, entailing a loss of about \$18,000. The plant will be rebuilt immediately.

The Wiscasset Mills Co. has been incorporated, with capital stock of \$175,000, to build and operate a cotton mill at Albemarle, N. C. The incorporators are J. W. Cannon, J. S. Eford, D. F. Cannon and K. J. Davis. The company is to operate the mill lately noted as proposed by J. W. Cannon.

The Kincaid Manufacturing Co., of Griffin, Ga., recently reported as contemplating improvements, has definitely decided to at least double its equipment. The latter is now 6410 spindles and 210 looms. It is also probable that the company will erect an entirely new mill of large proportions and equipment.

The stockholders of the Barnesville (Ga.) Manufacturing Co. held their annual meeting last week and declared a dividend of 8 per cent. on preferred stock and 6 per cent. on common stock. The sum of \$7000 was laid aside as a surplus fund. Officers for the ensuing year are J. J. Rogers, president, and J. W. Hanson, secretary-treasurer.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

The Market for Cottonseed Products.

New York, N. Y., February 8.

Cotton oil remains slow and prices are lower. Sales are considerably less than two weeks ago, when a higher and stronger market prevailed, the shipment for the week consisting principally of the winding up of old contracts. The prevailing prices are regarded as bottom, and it is reported that producers are accumulating. Holders at this point have been somewhat disappointed at the slow demand from French sources, seeing that prices are favorable to purchasers. This, however, may turn out to be a decided benefit, as owing to the unusually heavy consumption of American cotton oil in France this year, due to the short olive crop, further heavy orders will undoubtedly be placed here in the near future, regardless of the status of the market under normal conditions. In this connection it may be observed that owing to the short olive crop referred to may be attributed the large purchases of fancy oils which have been made during the past month. Production has been large, and while the mills for the most part have disposed of oil on a satisfactory basis, the future output will not be excessive, for which latter reason and owing to the temporary market weakness, it would appear safe to look upon oil as good property. A helpful factor in the situation consists in the strong position of lard and improved demand for the compounded article. May lard is quoted firmly, Chicago delivery, at 4.97½ cents, while tallow has been moving more freely at slightly higher prices, 3.9-16 cents being quoted for New York city makes. Sales of tank crude for the week are reported at thirty tanks on a basis of 15¼ to 15½ cents, Atlantic coast points. White oil has been selling fairly well at 24 to 24½ cents. Winter yellow is not in demand and very few sales are reported. A review of the situation would tend to strengthen the belief that the weakness which the market presents is due to the application of manipulative methods rather than to the law of supply and demand. Exports for the week aggregate 7550 barrels and receipts 5254 barrels. The following are closing prices, which, it may be observed, are more firm than for several days past: Crude, 18¼ to 18½ cents; crude, loose, f. o. b. mills, 15 to 16 cents; summer yellow, prime, 22 cents; summer, off-grade, nominal; yellow, butter grades, 25 to 26 cents; white, 24 to 24½ cents; winter yellow, 26 to 27 cents; salad oil, 27 to 28 cents, and soap stock, ¼c. to ¾c. per pound.

Cake and Meal.—Reports from the United Kingdom are to the effect that owing to the mild, open weather the demand for feeding stuffs all round is on a reduced scale and values tend in buyer's favor. Prices rule from £5 10s. to £5 15s. per ton. Alexandria cottonseed is arriving more freely, and for February-March delivery £4 17s. 6d. per ton is quoted. While sales have been reported at the South as being fairly satisfactory, it cannot be said stocks are freely offered. Prices are well maintained.

Cottonseed-Oil Notes.

In the Texas market there is only a moderate inquiry for cottonseed oil, and prices are about steady at 14½ to 15 cents for prime crude loose, and 17 cents offered for prime summer yellow oil; prime cottonseed cake, \$13.50 to \$14.75

per short ton, and prime cottonseed meal, \$13.50 to \$14.25; linters, per pound, 1¼ to 2¼ cents. The above prices are f. o. b. mill Texas interior points, according to location.

Cottonseed products in the New Orleans market are without change, and prices are steady. Since September 1, 1897, the exports of cottonseed oil from that port amount to 3,254,500 gallons, against 6,236,845 gallons last year. Receivers' prices are reported as follows: Cottonseed, \$7 per ton of 2000 pounds net to the mills, no commission of any kind to be added; cottonseed meal jobbing per carload at depot, \$17 per short ton of 2000 pounds; for export per long ton of 2240 pounds f. o. b., \$18.75 to \$19; oil-cake for export, \$18.50 to \$18.75 per long ton f. o. b.; crude cottonseed oil at wholesale or for shipment, strictly prime oil, crude, 15 to 15½ cents, loose f. o. b. tanks at Mississippi valley points; in barrels, 17½ to 18 cents; refined cottonseed oil, prime in barrels per gallon at wholesale or for shipment, 21½ to 22 cents for export; cottonseed hulls delivered per 100 pounds, according to location of mill, 12 to 17½ cents; linters, according to style and staple—A, 3½ cents; B, 3¼ cents; C, 2½ to 3 cents; ashes, none.

Commercial Death Rate.

Business men everywhere and students of commercial movements in this country will find much of value in a pamphlet issued by the Bradstreet Company, entitled "A Record—Not a Prospectus." In it are discussed credit ratings in the light of failure statistics and causes affecting the commercial death rate. For about twenty years the company has been collecting this data, and some of the statistical deductions therefrom are now presented in tables of the proportions of failures to those in business for the past four years; failures in the United States and Canada, classified according to credit ratings, to liabilities and to capital employed; failures compared and classified according to primary causes and according to sections. These make available facts of importance to business men, economists and sociologists.

Literary Notes.

Textile Manufacturers' Directory; 400 pages. Price, including pocket edition, \$5. Published by Max Jagerhuber, 106 Grand street, New York city.

The Textile Manufacturers' Directory of the United States and Canada for 1897-98 comprises a complete list of the woolen, cotton, silk, jute, flax and linen manufacturers, dealers and brokers in raw material, dry goods, commission merchants, jobbers and leading retailers, city offices and agencies of manufacturing companies, dyers, bleachers, finishers and print works of textile fabrics, alphabetical index of the manufacturers in the textile industry, and a review of the wool, cotton and silk industries. The completeness of this work is fully shown in the above, and its usefulness in any establishment where the subject it treats upon could be needed is apparent.

During February Harper's Bazar will begin a clever new department, in which the affairs of the day in New York and other cities will be lightly touched upon in bright and sparkling paragraphs. This department will be conducted by a lady whose name will not be given.

The Anchor Cotton Mills, of Huntersville, N. C., has decided to double its equipment of 2500 spindles and 100 looms. The building will be enlarged to make room for the additional machinery.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., February 10.

The local phosphate market is quiet, with no urgent demand from any source. Several small lots are reported sold during the week, but the general trade is quiet, in sympathy with the movement in other fertilizer material. From points of production advices continue unchanged. In South Carolina there is a fair inquiry from domestic ports, but the foreign demand is light. Prices are about nominally steady. There is a fair movement in Florida phosphate rock and foreign shipments of hard rock are showing an increase over January. There is also considerable pebble rock moving from the several Florida ports. Orders for phosphate are reported better in the Tennessee phosphate field, and in the Mount Pleasant district shipments are showing considerable activity, while prices continue nominally steady with a good demand. The only charter reported in the local market during the week was the schooner Anna L. Mulford, 518 tons, from Ashley river, South Carolina, to Baltimore with phosphate rock on private terms. In the New York market during the past week the following charters were reported: Schooner Frances M., 1096 tons, from Tampa to Cartaret with phosphate rock at \$1.90; schooner E. G. Hight, 467 tons, from Port Royal to Baltimore with phosphate rock on private terms, and British steamer Verbena, 1505 tons, from Fernandina to Stettin with phosphate rock at 17s. 6d.

Fertilizer Ingredients.

The demand for leading ammoniates is moderate, but there has been a fair volume of transactions during the past week. Considerable Eastern demand has developed, but from Southern sources there is very little inquiry. Stocks in the West are fully ample for all requirements and prices for blood and tankage are steady. Sulphate of ammonia is firm. Nitrate of soda is moving freely, with New York holders asking \$1.65 for spot. The agents of the German Kali Works have announced their contract prices for potash salts for the season of 1898. The schedule shows no change from the prices current last year.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)	\$2 60 @ 2 65
Nitrate of soda	1 80 @ 1 85
Blood	1 72 @ 1 75
Hoof meal	1 65 @ 1 68
Azotine (beef)	1 70 @ 1 72
Azotine (pork)	1 70 @ 1 72
Tankage (concentrated)	1 55 @ 1 58
Tankage (9 and 20)	1 60 and 10
Tankage (7 and 30)	15 00 @ 15 50
Fish (dry)	19 50 @ 20 00
Fish (acid)	12 00 @ 12 50

Phosphate and Fertilizer Notes.

The British steamship St. Irene cleared from Brunswick, Ga., last week for Liverpool with 2150 tons of Florida phosphate rock and other cargo.

The following shipments of phosphate rock were reported from the port of Punta Gorda for the month of January: Schooner Estelle with 591 tons and schooner Talofa with 1590 tons, both for Wilmington, N. C.

The fertilizer movement from Charleston, S. C., is now said to be very satisfactory to railroads, shippers and consignees. The movement for several weeks has been very heavy and the demand good all along the line. Prices continue firm and hardening.

The following shipments of phosphate rock from Charleston, S. C., to domestic ports for the week were reported: Baltimore, 3450 tons, and Weymouth, Mass., 810 tons. The total shipments since Sep-

tember 1, 1897, amount to 39,398 tons, against 40,113 tons for the corresponding period in 1896-97.

The shipments of phosphate rock from the port of Savannah for the month of January amounted to 2211 tons, of which 1197 tons went to Bremen and 1014 tons to Germany. The German steamship Essen cleared last week from Savannah, Ga., for Bremen and Hamburg with 2011 tons of Florida phosphate rock among her cargo for the latter port.

The Peace River Phosphate Mining Co. held its third annual meeting last week in Savannah, Ga. Those present were Col. George W. Scott, of Atlanta; Mr. R. W. Patterson, of New York; Mr. John T. Wilson, of Montreal, Canada; Mr. H. M. Comer and Mr. Joseph Hull, of Savannah. The old board of officers was re-elected as follows: President, Joseph Hull; vice-president, John T. Wilson; treasurer, R. W. Patterson; assistant treasurer, E. A. Richmond; secretary, Robert S. Cope. The affairs of the company were discussed and various routine matters considered. It was stated that the business of the company last year had been very satisfactory and prospects good for the present year.

Messrs. Auchincloss Bros., agents of the Dunnellon Phosphate Co., in their London circular for January present a record of the Florida hard-rock phosphate business for the year 1897. In their estimates of shipments of hard-rock phosphate the following is given: To United Kingdom ports, 33,073 tons; Baltic ports, 95,646 tons; Continental ports, 186,516 tons; Mediterranean ports, 32,627 tons, making a total of 347,862 tons foreign and 2415 tons domestic, against 314,208 tons foreign and 8683 tons domestic in 1896. Of the general market for Florida high-grade rock and the present status of the industry Messrs. Auchincloss Bros. say: "During 1897 the continued and severe depression in prices has been most disastrous to the Florida high-grade rock industry. Of the companies in existence on January 1, 1897, a very considerable number have during the year disappeared, having completely abandoned all operations, either owing to exhaustion of deposits or to the exhaustion of funds through losses incurred in operation. The process of exhaustion and abandonment has been accentuated during the past year. The figures from our records of the present condition of the 252 corporations or individuals who organized to engage in high-grade rock mining in Florida since the commencement of the industry in 1890 to December 31, 1897, show as follows: Twenty-eight corporations or individuals are at present actively operating high-grade rock mines in Florida; 41 companies were organized for mining purposes, but failed before mining operations were commenced, and 183 commenced mining, worked for a time, but being financially unsuccessful, abandoned operations. Of the above 183 who attempted mining, 135 abandoned operations in consequence of the exhaustion of their mines or pits. We would, however, repeat the remarks made in our last year's circular, that we do not wish to be misunderstood as in any way predicting an early exhaustion of the Florida high-grade deposits. This would be most incorrect, as there are many large and valuable properties as yet untouched, but these are held by parties able to protect their interests. We wish only to emphasize the fact that easily and cheaply worked deposits of high-grade rock, available to small operators, virtually no longer exist in Florida. The reports of our representatives show that the stock of phosphate above ground ready for shipment has during the year steadily decreased, and at present writing

is but 50 per cent. of the stock on hand and ready for shipment January 1, 1897, and from a close following of the industry we are also able to state with accuracy that the average monthly production of high-grade rock in Florida during 1897 has been less than 80 per cent. of the average monthly shipments. From these premises it seems but reasonable to conclude that the Florida high-grade rock industry has during 1897, under the pressure of extremely low prices, been steadily adjusting itself to the demand, and that the restriction of available, easily worked deposits, the decreased stock on hand, the decreased rate of production and the increased rate of shipments indicate that the business is emerging from the unhealthy conditions so long prevalent."

Iron Markets.

Cincinnati, O., February 5.

At the close of last week the situation was decidedly shaky, and it looked as if the increasing demand was resulting in lower prices, especially for Southern brands. One would naturally think that the appearance of a number of large buyers in the market would cause prices to become steady at least, if not to advance, but this was not the case. There was such an eagerness on the part of a few sellers to get some desirable orders that prices were cut about twenty-five cents per ton. Rumors have been afloat that the largest producer in the South had decided to meet competition, and had in consequence taken a great volume of business. The fact is, however, that about two weeks ago the company named found itself in need of some orders for gray forge and No. 4 foundry, and in order to obtain them made a slight concession on those grades, but not greater than had been made by a number of others previous to that time. They positively refused to grant any reduction on soft and foundry grades, and have maintained their schedule rigidly with the exception noted above.

The large transactions of Friday and Saturday of last week caused alarm among the leading producers in the South, for they saw that if this course was continued by even a few of them it would soon result in a demoralization of prices that would force quotations back to less than cost of production. It is believed that conservative counsel will prevail and that prices not lower than \$7.25 for No. 2 foundry and \$6.50 for No. 4 foundry will be made hereafter. Even at these prices only a few companies in the South can keep even.

There has been a fair demand for Northern coke brands, with little change in prices. Like Southern quotations, they are down to a point where there is little opportunity for the furnaces to go lower without positive loss.

Perhaps the leading feature of the past two weeks has been Lake Superior charcoal iron. It is reported that several furnaces formerly in the combination will not operate until conditions are more favorable, and they are now closing out their stocks of iron at best prices obtainable, and there is fierce competition in that class of material. Buyers are not slow to avail themselves of the attractive offers being made, for it is only a question of a short time before quotations will be advanced to living figures. Up to this time it cannot be seen that the three companies now composing the combination have been able to gain any advantage over the "Hinkle" furnace that is working independently.

We quote for cash f. o. b. Cincinnati:

Southern coke, No. 1 foundry	\$9 75 @ \$10 00
Southern coke, No. 2 foundry	9 50 @ 9 75
Southern coke, No. 3 foundry	9 25 @ 9 45
Southern coke, gray forge	8 75 @ 9 00

Southern coke, mottled	8 75 @ 9 00
Southern coke, No. 1 soft	9 75 @ 10 00
Southern coke, No. 2 soft	9 50 @ 9 75
Belfont coke, No. 1, Lake Sup.	11 00 @ 11 50
Belfont coke, No. 2, Lake Sup.	10 50 @ 10 75
Hanging Rock charcoal, No. 1	14 50 @ 15 50
Tennessee charcoal, No. 1	12 50 @ 13 00
Jackson Co. silvery, No. 1	12 50 @ 13 00
Standard Georgia car-wheel	14 25 @ 15 00

Philadelphia, Pa., February 5.

The steel market has been active this week and billets have advanced. Furnace and foundry coke have an upward tendency, and the consumption of both kinds of coke is simply enormous. In pig iron the only real weakness is shown by Lake Superior charcoal furnaces, and that is likely to be only temporary, being caused by the dissolution of the combination of charcoal furnaces in the Lake Superior district which merged into one company a year ago.

We quote for cash f. o. b. Philadelphia:

No. 1 X standard Alabama	— @ \$11 00
No. 2 X standard Alabama	— @ 10 50
No. 1 X lake ore coke iron	— @ 11 75
No. 2 X lake ore coke iron	— @ 11 25
Lake Superior charcoal	— @ 14 00
Standard Georgia C. C.	— @ 15 50

New York, N. Y., February 5.

There has been no change in the general situation observable from the conditions prevailing at our last writing. The severe weather of the season precludes necessarily any outdoor work; building and construction of all sorts is suspended, curtailing the foundry products in many ways, and for the time being consumption is in a measure reduced. Production continues on a very liberal scale; probably all the available furnaces are in operation that can make iron at prices current.

The extraordinary competition in Lake Superior charcoal irons has naturally led to a very marked increase in the traffic in that branch of the pig-iron business. Buyers are availing themselves of the advantages of the low prices prevailing.

While it is possible that production is slightly in advance of consumption, there is every reason to believe that the excellent general business looked for in the early spring will require a large amount of pig iron, and it is reasonable to say that there must be a better supply for the anticipated demand than the present stocks would afford, else very much higher prices may be certainly looked for.

Prices are maintained on the regular coke brands, both Northern and Southern. Furnaces are very well satisfied with the general situation and the outlook, and are indisposed to offer concessions except on certain grades of which they may have a little surplus.

We quote for cash f. o. b. New York:

No. 1 X standard Alabama	\$11 00 @ \$11 25
No. 2 X standard Alabama	10 50 @ 10 75
No. 1 X lake ore coke iron	12 50 @ 12 75
No. 2 X lake ore coke iron	12 00 @ 12 25
Niagara coke malleable	12 00 @ 12 25
Rome (Ga.) charcoal	15 00 @ 15 50
Hinkle L. S. charcoal	13 50 @ 14 00

ROGERS, BROWN & CO.

The retail lumbermen of Kansas, Nebraska, Oklahoma and Missouri who recently attended a convention at Kansas City, Mo., arrived in Galveston, Texas, on the 30th ult., coming direct from Port Arthur, where they were royally received and shown the principal improvements now in progress at that port. The party also visited Sabine Pass and Beaumont, Texas, and inspected the jetties out in the gulf and milling plants of the interior.

During January 32,534,170 pounds of zinc and 4,951,610 pounds of lead were shipped from the Joplin (Mo.) district. These sales are the largest ever reported for January.

The Mississippi house has killed the senate bill appropriating \$25,000 for a textile school at the Agricultural and Mechanical College.

L. R. Eastman has been elected secretary of the Chamber of Commerce at Nashville, Tenn.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.**Baltimore.**

Office Manufacturers' Record,

Baltimore, Md., February 10.

A fairly active business in many departments of the local lumber industry is being developed as the season advances. There is a better demand, while prices seem to show a hardening tendency for certain grades and dimensions of lumber. Receipts of yellow pine are liberal and stocks are ample for the demand. There is a fair inquiry for certain grades of air-dried yellow pine, and boxmakers and planing mills have been larger purchasers during the week. In kiln-dried North Carolina yellow pine the volume of business is better, and there is a good domestic as well as improved foreign inquiry. Cypress lumber is moving more freely and values are steady, with a fair amount of stock. In white pine there is a fair movement, while the general list of values is firm at quotations, while stocks are in no case of an excessive nature. The hardwood business shows a fairly active demand from out-of-town buyers, but in a local way business is quiet. There is some inquiry for oak and poplar, but very little demand for walnut. All woodworking concerns are buying in small quantities to satisfy immediate wants. The export business is quiet.

Charleston.

[From our own Correspondent.]

Charleston, S. C., February 7.

The local lumber market continues to show more activity, and shipments from this port and Georgetown have been improving since the middle of January. The mills are all busily engaged, and the demand for both cypress and yellow-pine lumber is better, while prices are firm at quotations. At the close of the market on Saturday the following figures were current: Merchantable lumber, \$14 to \$16 for city-sawed, \$12 to \$14 for railroad; square and sound, \$9 to \$13 for railroad, \$8 to \$11 for raft; dock timber, \$4.50 to \$6.50; shipping, \$8.50 to \$10.50. There is a good demand for shingles, and the market is firm at \$4 to \$7. The business in cross-ties is of considerable proportions, and values are steady, with several new contracts reported during the week. Among the shipments last week were the following: Schooner Mary H. Williams for the West Indies with 25,000 feet of lumber; schooner Norembego for San Domingo with 182,000 feet; schooner Josephine Elliott for Boston with 315,000 feet, and schooner Nelson E. Newberry for New York with 540,000 feet, and schooner H. & J. Blenderman for the same port with 408,000 feet. Clyde steamers took out 92,120 feet of lumber for New York. The total domestic shipments of lumber since September 1, 1897, amount to 20,431,618 feet, and of foreign to 559,000 feet, making a total of 20,990,618 feet, against 25,423,820 feet for the corresponding period in 1896-97. Lumber freights are firm, with rates unchanged and owners asking outside figures; to New York, \$4.38 to \$4.50, and wet ties to Perth Amboy, 15 cents each, basis forty-six feet; lumber to Fall River, \$4.50, and dry railroad ties to New York, 11½ cents, basis thirty-six feet.

Savannah.

[From our own Correspondent.]

Savannah, Ga., February 7.

Considerable activity has characterized the lumber market here during the past

week and shipments have been of greater volume, aggregating over 5,000,000 feet, distributed as follows: New York, 1,457,046 feet; Santos, 766,402 feet; Baltimore, 986,427 feet; Philadelphia, 814,353 feet; Wilmington, Del., 465,713 feet, and Portland, Me., 350,000 feet. Prominent lumbermen say that prices are better and the demand more active than at the same period last year. New mills are being erected on the line of the Georgia Southern & Florida Railway, and the same is said to be true of all railroads leading through the pine section. The railroad from Sparks to Moultrie, twenty-four miles long, is now in operation, and already four mills have been erected on the line. The city has been enlivened during the week by the Union Association of Lumber Dealers of Ohio and Pennsylvania, and great preparations were made to receive the visitors. At Charleston, Atlanta, Macon and all points visited the party met with a most hospitable reception. The demand here for cross-ties is quite pronounced, and several cargoes are to be shipped during the present month. The offering of tonnage is moderate and rates of freight on lumber and other wood products are steady. Among the charters reported in New York last week were the following: Bark Albert Shultz, 473 tons, from Savannah to New York with lumber at \$4.50 and ties at 14½ cents; a schooner of 513 tons from Savannah to Philadelphia with lumber on private terms; schooner Sadie C. Sumner, 587 tons, from Brunswick to Boston with dry cypress and yellow pine at \$4.62½; schooner Helen M. Atwood, 654 tons, from Brunswick to New York with ties at or about 14½ cents, and schooner Florence Leland, 327 tons, from Brunswick to Norwich with lumber at \$4.87½.

Jacksonville.

[From our own Correspondent.]

Jacksonville, Fla., February 7.

The movement in wood products at this port during the month of January was of considerable volume and the general business for the month fully up to the average. The demand for yellow pine and cypress lumber continues quite active and prices very firm, while manufacturers are not disposed to make concessions in order to effect sales. The saw mills, both here and at adjacent points, are well supplied with orders and there is a good domestic as well as foreign demand. Manufacturers and others engaged in the lumber industry look for large shipments during the present year. A number of vessels are now in port loading lumber, while a number are expected to arrive during the present week. The domestic exports of wood products for the month of January are given as follows: Yellow-pine lumber, 8,663,056 feet; cypress, 611,000 feet; shingles, 2,723,000; cross-ties, 25,370, and cedar logs, 300. The foreign exports for the month were 100,000 shingles and 591,045 feet of yellow pine and two miscellaneous cargoes, both of which went to Hope Town, Bahamas. There is a very good feeling among manufacturers here in regard to the lumber industry, and there is every indication of an increased volume of business during the spring and summer months. Stocks are not allowed to accumulate, and the demand is so pronounced that the output is shipped as soon as cut. Among the steamers clearing last week the Comanche, for New York, took out 180,000 feet of lumber, 2800 railroad ties, 4000 shingles and other cargo. The British schooner Nawaydin cleared for Bridgetown, Barbadoes, with 154,749 feet of yellow-pine lumber. Among the charters reported in New York last week were the following: Schooner J. S. Hoskins, 391 tons, from Jacksonville, Fla., to Balti-

more with lumber on private terms, and schooner S. G. Haskill from Fernandina to New York with lumber at \$4.50 and cross-ties at 12½ cents, loaded and discharged. A large party of lumber dealers and manufacturers from Ohio and Pennsylvania arrived in the city on Friday last, and were received by President Fairhead and other citizens. The party was shown through the saw mills, visiting the Cummer Lumber Co.'s and other plants, after which a trip on the St. John's river was enjoyed.

Mobile.

[From our own Correspondent.]

Mobile, Ala., February 7.

The general trade of the port last week was quite active, and not only in cotton, but in grain and pig iron, the exports were of considerable volume, while the movement in timber, lumber, deals and staves showed increased expansion. The demand for lumber and timber may be called moderate compared with former seasons, but the shipments reported each week show a decided increase. The foreign demand for timber is fairly active, and for lumber foreign shippers are having a better business. Reports from the markets in Great Britain and the Continent are more favorable, and in reference to the pitch-pine market the Timber Trades Journal of January 22 has this to say: "The pitch-pine timber was in good demand, and this class of wood appears to be getting back its former tone. It is rumored about that supplies from Gulf of Mexico this season will be less than usual, and that the United States will absorb more of this useful wood, but this does not apply to lumber, as we learn considerable importations of dressed goods are likely to reach our shores. The few lots of the latter in Wednesday's catalogue went fairly well for this market, but it cannot pay to bring it here at the values realized." In the local market sawn timber is still quoted at 10 to 10½ cents per cubic foot, 40-foot basis, and hewn timber at 12 to 12½ cents per cubic foot, basis of 100 cubic feet, average B1 good. Hewn oak is dull at 14 to 16 cents per cubic foot for first-class, and hewn poplar is in limited demand at 10 to 11 cents per cubic foot for large average girth. In lumber stocks are generally well assorted, and mills here and at adjacent points are running on full time, with a fair supply of good orders, both foreign and domestic. The demand comes mainly from Northern ports, South America and United Kingdom and Continent. There is some trade with Central America, but very little demand from Mexico or the West Indies. During the past week the clearances were as follows: Bark Ilax for Hamburg with 29,686 cubic feet of sawn timber and 8950 feet of lumber; schooner Aetna for New York with 350,000 feet of lumber; bark Armonia for Buenos Ayres, A. R., with 636,026 feet; schooner Gladstone for Havana with 120,000 feet, and for Central America several lots of lumber aggregating 160,000 feet. The total shipments of lumber since September 1, 1897, amount to 23,438,964 feet, against 31,691,043 feet last year. Among the charters in New York last week were a British steamer, 2086 tons, from Pensacola to Holland with sawn timber at 120/, and schooner Maggie S. Hart, 503 tons, from Pensacola to Boston with lumber at \$6. From the port of Pascagoula the exports of lumber and timber show a marked increase, the shipments being mostly to South and Central America and the West Indies. The movement of lumber from Pensacola is good, and the general trade of that port is quite active, while it is expected that the record of shipments for the current year in all

wood products will make a very favorable showing.

Lumber Notes.

The logs and lumber exported from Norfolk during the month of January amounted in value to \$83,963, while 572,195 staves were exported, valued at \$16,300.

The building and machinery of the Alexandria Cooperage Co., of Alexandria, La., was totally destroyed by fire last week. The loss is not estimated, but the insurance on the plant was \$3500.

The Beaumont Journal states that "a bill was placed in that city last week for about 11,000,000 feet of ties and timbers for delivery at El Paso. They are for the Chihuahua & Pacific Railroad, a line under construction in the State of Chihuahua."

The Tampa Lumber Co., of Tampa, Fla., is putting in a large saw-mill outfit at its logging camp at the head of the Hillsboro river. The plant will be used for sawing heavy cypress timber and manufacturing shingles on an extensive scale.

Ex-Councilman Delavigne, who was recently elected secretary of the Mechanics, Dealers and Lumbermen's Exchange of New Orleans, took charge of his office last week, succeeding Mr. Charles E. Dirneyer, whose resignation went into effect on the 1st inst.

Articles of incorporation were filed last week at Little Rock, Ark., incorporating the Helena Box Co., with a capital stock of \$60,000. The incorporators are John J. Hornor, Sidney H. Hornor, Leon Berton, Henry W. Mosley and A. W. Sutherland. The company proposes to manufacture lumber and other wood products.

Among the shipments of wood products for the month of January from the port of Jacksonville, Fla., were the following: Yellow-pine lumber 8,663,056 feet coastwise, 591,045 feet foreign; cypress lumber, 611,000 feet coastwise; shingles, 2,823,000 foreign and coastwise; cross-ties, coastwise, 25,370, and cedar logs, 300.

The Florence Pump & Lumber Co., of Florence, Ala., closed a deal last week for 300,000 feet of lumber to be rafted down the Tennessee river. This company is now doing an extensive business and uses millions of feet of lumber annually, getting its supplies mainly from adjacent sections in Alabama and Southern Tennessee.

An excursion party numbering nearly 300, consisting of members of the Missouri-Kansas Retail Lumber Dealers' Association and their friends, arrived last week at Beaumont. The party remained about three hours in the city and went on a tour of inspection of the lumber industry of the great Southeast Texas lumber center.

A full trainload of twenty-five cars of lumber was shipped from Nashville, Tenn., last week by Messrs. John B. Ransom & Co. Three cars were for Denver, Colo.; one to Portland, Me., and the others to New York, Boston, Pittsburg and other points. There were all varieties of hardwood lumber in the shipment, the total amount on the train being 350,000 feet.

It is stated that the wharves of the Tunis Lumber Co., at Baltimore, Md., destroyed by fire last July, are to be rebuilt. The main wharf will be 400 feet long and 60 feet wide, and will be covered with an open shed. An office will also be built, but the planing and saw mill will not be rebuilt at present. Mr. Justin McCarthy, of Norfolk, has been awarded the contract.

MECHANICAL.

IN A NEW AGE OF ICE.

What Refrigerating Machinery Is Accomplishing for Mankind.

One of the notable manifestations of the progress of the past fifty years is the development of luxuries into necessities. What were enjoyed only rarely by our forefathers are now everyday matters for the mass of men in this country. One of the contributions to human happiness which have been thus modified is ice. It was not needed at a time when the town pump was a venerated institution and when the springhouse was within a stone's throw of the dwelling. But as the soil of cities became polluted with the increase of population, while microbes innumerable made their way by a beeline to natural water supplies, large communities were compelled to resort to artificial supplies. For years Philadelphia has had its Schuylkill water tainted by the sweat of industry upstream; Washington has enjoyed its Potomac flavored with the surface drainage of parts of Virginia and Maryland; Richmond has clung to the James, containing many highly colored specimens of the geology of Chesterfield county, and Chicago has reveled in a dilution of its sewage with the waters of Lake Michigan. Even where the water has been filtered it is warm and flat at a time when coolness is most desired.

There has, therefore, been a demand for refrigeration, and refrigeration that will not, as in the case of natural ice, be likely to add to the impurities of the water.

The application of artifice to this problem is an old one. Its origin dates beyond the memory of man. It is more than likely that Dives dwelt in imagination upon some such device when he found himself in that exceedingly hot place of which the record has been made. Be that as it may, it is known that at an early day the natives of tropical and semi-tropical climes had means for cooling their beverages, simple yet effective. Swinging water in a porous jar, permitting rapid evaporation, was one method. The practice in India of placing water in a shallow earthen dish, resting upon non-conducting material, and leaving it to the mercy of the sudden drop of temperature at night, was another. These were primitive undertakings.

The next stage was the use of chemicals, devised about the middle of the sixteenth century. Then came Sir John Leslie in 1810. He succeeded in freezing water by rapid evaporation with sulphuric acid as a means of eliminating the vapors. Faraday's well-known experiments were contemporary with those of Vallance in 1824. Ten years later Jacob Perkins, an American, patented in England what is claimed to have been the first ice machine of commercial value. It was a flat vessel, containing ether immersed in a vessel containing water or any substance to be cooled. Vapor of ether was exhausted from this vessel by means of an air pump and again recondensed by forcing it through a coil of tube immersed in cold water by the action of the same pump, and then forced, liquefied, into the original vessel. This answered the purpose of a domestic refrigerator, but was not an ice-producing apparatus.

About 1850, the date of the experiments of Dr. John Gorrie, of Florida, and Dr. Alex. C. Twining, of Vermont, began the era of the development of the idea which has taken three general forms, that of liquefaction by mixtures,

that of expansion of vapors and that of expansion of compressed air.

A number of firms and individuals have applied various devices to the problem. Among those who have gained a reputation for the manufacture of apparatus producing ice upon an economical basis is the firm of John Featherstone's Sons, of Chicago. They are among the leaders of the movement that permits meats and vegetables to be transported in fully preserved condition thousands of miles and which gives pleasure to the well and relief to the invalid wherever they may be. Their machinery makes people independent of temperature. It is creating a new ice age, without interfering with natural progress.

A Complete Plant.

One of the successful manufacturing firms in the West is the Kiechler Manufacturing Co., of Cincinnati, organized in 1861 by Mr. Kiechler. Under wise management this has become one of the largest establishments of its kind in the United States. The building is very large,



being 200x110 feet in size, and contains the latest improved machinery. The company's specialty is galvanized ice cans for ice factories, made from the smallest to the largest size, some of which hold a ton of ice each. Other specialties are tanks, reboilers, filters, skimmers, distributing troughs, etc., either of block steel or galvanized iron.

During January Winston, N. C., sold 1,723,911 pounds of leaf tobacco. On February 1 the shipments of manufactured tobacco from Winston were 125,429 pounds—a record-breaker.

TRADE NOTES.

Ice-factory Sale.—The special master's sale of the new Consumers' Ice Factory at New Orleans, La., which is to be held February 28, will offer an exceptional opportunity to investors to secure a complete ice factory. The plant is located at New Orleans, and Alcee Le Blanc is special master.

Investors' Opportunity.—An excellent opportunity for investors who have confidence in Southern securities is offered in the Fayetteville Water Co.'s 5 per cent. bonds now offered for sale. The company is located at Fayetteville, Ark. The bonds are 18-year, interest payable semi-annually. Proposals will be opened March 20.

Big Foreign Order.—A 25-ton electric crane has just been put in the Covington (Ky.) plant of the Davis & Egan Machine Tool Co., of Cincinnati, manufacturer of machine tools. The company has now on file an order amounting to \$10,000 from Julius Neville & Co., of Madrid and Barcelona, Spain, for lathes, planers, presses, drills, milling machines, screw machines, etc.

Large Contract for Heaters and Purifiers.—Messrs. James Bonar & Co., Pittsburg, Pa., have received a contract from New Castle,

Pa., for 5000 horse-power Pittsburg feed-water heaters and purifiers, consisting of two heaters of 2500 horse-power capacity each, for a new tin plant, which is the largest in this country; also furnishing eight 8-inch, three 14-inch and one 16-inch direct steam separators, to be applied directly to the throttle valves of the engines.

New Gas and Gasoline Engine.—Four sizes of the new "Frontier" vertical gas and gasoline engine, made by the Frontier Iron Works, of Detroit, Mich., are now on the market. The company states that other sizes will be ready by March 1. This engine is designed especially for powers ranging from one to ten horse-power; above this size the company builds a two-cylinder "Frontier" tandem for powers from 10 to 100 horse-power. The demand for these engines is constantly increasing.

Machinery Stores.—South Canal street, Chicago, boasts of some of the finest machinery stores in the world. Railroad track directly in the rear of the buildings make it a particularly favorable location. One of the largest of these stores is that of the J. A. Fay & Egan Co., located at Nos. 22, 24 and 26, they being there for the convenience of customers located in Northern Illinois, Wisconsin, Minnesota, Colorado, Iowa and Nevada. A full line of both J. A. Fay & Co. and Egan Company machines is carried there.

Agricultural Implements, etc.—"Crowded with orders and running our shops to the fullest capacity in every department; having an immense sale on our wheel-spring tooth harrows, cultivators, saw mills and grain drills; recently made shipment of two carloads of harrows to Portland, Ore., and two carloads of cultivators to San Francisco, Cal., and have received orders for two more carloads for Oregon and two to Southern California; also received orders in the last two or three days for eight saw mills and two engines." The foregoing is the report that comes from Messrs. Hench & Dromgold, of York, Pa.

Extending Facilities.—The Nicholson File Co., of Providence, R. I., acting through the Great Western File Co., of Beaver Falls, Pa., its Western branch, has leased the plant of the McClellan File Co., of Saginaw, Mich., maker of the McClellan brand of files and rasps. The Nicholson Company will continue the manufacture of the McClellan brand in connection with its Great Western brand. With this addition the Nicholson File Co. now controls and operates five distinct factories, with a joint capacity of 6400 dozen or 76,800 files daily, representing about 70 per cent. of the entire production of files and rasps in the United States. The Nicholson Company has been making additions and increasing facilities to satisfy the domestic and foreign demand.

Ginning Egyptian Cotton.—An interesting experiment was made recently at Cuero, Texas, by the United States Department of Agriculture. It was the ginning of cotton grown from the Egyptian seeds distributed several years ago by the department with a view to the introduction of its cultivation in this country. W. H. Wentworth, of Cuero, raised over 1000 pounds of the cotton, and then, being at a loss how to have the cotton ginned for the market, applied to the Agricultural Department for assistance. It was known that the ordinary gins, as used on American cotton, would cause the Egyptian cotton to become short staple, and thus the benefits of the new growth would be lost. The Bailey-Lebby Co., of Charleston, S. C., notified the department that it could furnish machinery and an expert to operate it without cost, excepting expenses. This offer was accepted, and the Bailey-Lebby Co. shipped to Texas one of the Dobson & Barlow cotton gins, manufactured in England, for which this company is agent, intended for the express purpose of ginning cotton of the long-staple variety. The gin consists of a roller, covered with leather, either in solid washer or in strips, fastened to wood, against which is pressed a fixed knife; the cotton thrown into the hopper, and falling, is seized by the friction of the leather and is drawn between the fixed knife and leather surface; while this is being done there is a beater knife which is reciprocated at a considerable speed and which strikes the seed attached to the cotton drawn away by the leather roller; the detached seed will then fall through a grid provided. The cotton is fed constantly to the roller by the action of an automatic feeder, also with a reciprocal motion. The production is about eighty pounds of clean cotton per hour, three horse-power being sufficient to run the gin. The cotton ginned

at Cuero showed a long, silky fiber measuring from one and one-quarter to one and one-half inches in length, somewhat resembling mohair or cashmere wool. That a Charleston firm was the only one that could supply the machinery for this important experiment is a credit to that city.

TRADE LITERATURE.

Calendar.—An excellent calendar for '98 has been received from Mr. H. P. Simpson, contractor, of Scranton, Pa., for prospecting with and sale of Sullivan diamond drills.

Garden Hose.—A catalogue of this generally used material is now obtainable on application to the Boston Belting Co., of Boston, Mass., which manufactures this product extensively.

Metal Presses.—The E. S. Stiles Press Co., of Watertown, N. Y., is distributing a card showing its No. 200 double-action press, No. 10 adjustable incline press and No. 19 adjustable incline press.

Big Belts.—A folder, entitled "Big Belts," has been issued by Messrs. Charles A. Schleren & Co., of New York, manufacturers of leather belting. The illustrations accompanying the folder show some of the 72-inch three-ply belts which the firm has made; also other large belts.

Tackle-blocks Catalogue.—An illustrated catalogue and price-list of wood and wrought iron and steel blocks is now being issued by the Western Block Co., of Lockport, N. Y. (not Westport, as erroneously stated in our recent notice). The company's catalogue is complete, with full specifications included.

"Why You Should Use 'Camel' Hair Belting."—The foregoing is the title of a booklet issued by the Rosendale-Reddaway Belting & Hose Co., of Newark, N. J. The booklet tells what camel's hair belting is, its method of manufacture, points of superiority claimed over other materials for belting and other features. Send for booklet.

Roofing Slate.—A net price-list for January, 1898, of roofing slate, structural slate and milled stock, as supplied by Messrs. John Galt & Sons, of 253 Broadway, New York city, has been issued. Messrs. Galt & Sons have been handling slate for many years and with the advancing years their reputation increases for having facilities and goods of a quality unsurpassed.

Incandescent Lamp Catalogue.—The General Electric Co., in view of the large number of applications made for information which is embodied in the second part of its recently issued Edison Incandescent Lamp Catalogue, has published this information in a separate 16-page pamphlet of small octavo form. This information is of value to all users of incandescent lamps, and the General Electric Co. will be pleased to supply copies of the pamphlet on application.

Drop-forgings.—An illustrative and descriptive price-list, dated January, '98, has been issued by Messrs. J. H. Williams & Co., of 9 to 31 Richard street, Brooklyn, N. Y. This firm manufactures a full line of iron, steel, copper, bronze and aluminum drop-forgings. By reason of the thorough equipment of their works against fire, they offer their customers unequalled protection against delays incident thereto. Special drop-forgings of any description whatever, annealing, tempering and case-hardening done to order.

Gazetteer of Power Plants.—Those interested in any manner in the power plants of Pennsylvania will find in the "American Gazetteer," issued by the American Gazetteer Co., of Cleveland, O., a complete and valuable volume. The book contains a list (with few exceptions) of the power plants in the State of Pennsylvania, and it has been compiled with great care, regardless of expense, in order to make it accurate and complete. The particulars given of the plants fully name the titles of the concerns, the number and horse-power of their boilers and engines, kind of goods manufactured, names of the various officers connected with the active management of the plants and other information. The few establishments which are not enumerated in the book are such as refused to supply the facts necessary for representation, and it was thought best to discard them rather than insert inaccurate figures regarding them. The "Gazetteer" contains a fund of useful information, tables and suggestions as to steam appliances and electricity which will be found invaluable.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in any town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and even then they must expect the return of some letters, because of the lack of knowledge on the part of postmasters of all new companies. Criticisms and complaints are invited, as they will the better enable us to guard against errors.

ALABAMA.

Birmingham—Iron and Coal Company.—Incorporated: The Gilreath Iron & Coal Co., capital stock \$25,000, by Belton Gilreath, J. M. Gilreath and E. H. Cabaniss, to open mines, operate furnaces, etc.

Birmingham—Telephone System.—The Southern Bell Telephone Co. will make extensive improvements to its building and exchange in Birmingham at an expenditure of possibly \$20,000; W. L. Woodruff, local manager.

Birmingham—Land Company.—Incorporated: The Pratt Land & Improvement Co., capital stock \$1500, by W. J. Stacy and others.

Marion County—Coalfields Development.—Certain railroad extensions now being arranged are intended for the purpose of assisting in the development of extensive coalfields in Marion and Western counties. Capitalists of New Orleans and Mississippi are interested, and it is stated that they have purchased 18,000 acres, containing a coalbed six to eight miles long, from thirty-six to forty inches thick, and so located as to be easily mined. Henry Wellman, president of the Teutonia Savings Bank, New Orleans, La., is among those interested. Maj. G. D. Fitzhugh, of Birmingham, Ala., is land agent for the company. Either of the above can be addressed for information.

Mobile—Fruit Importers.—Incorporated: The Bocas del Toro Banana Co., capital stock \$40,000, to import bananas, etc., by Minor K. Wilson, Herbert L. McConnell, of Mobile, and R. Braden, of Bocas del Toro.

ARKANSAS.

Fayetteville—Ice and Cold-storage Plant.—R. F. Redfern, of Springfield, Mo., will erect an ice factory and cold-storage plant in Fayetteville; plans are now being prepared.

Fort Smith—Clothing Company.—Incorporated: The J. J. Little Clothing Co., capital stock \$14,000, by J. J. Little and others.

Fulton—Water Works.—The city contemplates the construction of water works. Address the mayor.*

Helena—Box Factory.—The Helena Box

Co., to operate a box factory, has been incorporated with capital stock of \$60,000 by John J. Horner, S. H. Horner, Leon Belton, Henry W. Mosley and A. W. Sutherland.

Lamar—Mercantile.—Incorporated: Cazort Bros. & McGehee, capital stock \$20,000, by James R. Cazort, Wm. A. Cazort and J. F. McGehee.

Little Rock—Gold Mines.—It is stated that a company is developing gold mines near Little Rock; possibly E. B. Smith can give information.

Mammoth Springs.—The Mammoth Springs Cotton Mills is reported as to enlarge and put in new machinery.

Marianna—Mercantile.—Incorporated: The Banks Mercantile Co., capital stock \$5000, by Henry Banks and others.

Sulphur Rock—Mercantile.—Incorporated: The R. C. Dorr Mercantile Co., capital stock \$10,000, by R. C. Dorr, J. H. Kennedy and Dan Moore.*

FLORIDA.

Longwood—Mercantile.—Incorporated: The Clouser Co., capital stock \$10,000, by J. B. Clouser, F. J. Niemeyer and others.

Moundgrove.—Chartered: The Bud, Knox & Bud Co., with \$100,000 capital stock, to deal in all kinds of property, including town sites, roads, canals, etc. Henry O. Bud, Leonard B. Knox and John Beed are the incorporators.

Tampa—Sewers.—The city is advertising for bids on the construction of the proposed sewers; W. B. Henderson, president board of public works.*

GEORGIA.

Atlanta—Electric-light Plant.—The committee on electric-light plant has recommended that the city council employ a competent engineer, appropriating not more than \$1000, to investigate and report on the cost of the city erecting and operating its own electric-lighting system.

Atlanta—Bridge.—Arrangements are nearly completed for the asking of bids on the construction of the Mitchell street bridge. Plans and specifications have been agreed upon by the railroad officials and the city engineer; structure to be steel viaduct, total length 557½ feet, 16-foot span, 21-foot span, two 20-foot roadways, 10-foot sidewalk on each side; supports, steel posts; masonry abutments, etc. Address R. M. Clayton, city engineer.*

Atlanta—Bridge.—The city and the Southern and Central Railways have about completed arrangements for the construction of the Mitchell street viaduct. This structure will involve the expenditure of about \$70,000, and bids will soon be asked. Address the mayor.*

Gainesville—Fencing Company.—Incorporated: The Northeast Georgia Fencing Co., capital stock \$12,000, to manufacture and supply material for fences, etc., by H. T. Martin, A. J. Mundy and A. D. Candler, of Gainesville, and Harvey Richwein, of Indiana. Address H. T. Martin.

Griffin—Cotton Mill.—The Kincaid Manufacturing Co. will double its equipment (6410 spindles and 210 looms), or may erect an entirely new mill.

Harmony Grove—Cotton Mill.—W. T. Harber and G. W. D. Harber, recently noted as to build a cotton mill, have organized a \$100,000 stock company to erect same at once and operate it. Power will be supplied probably from electricity generated by water-power. Address G. W. D. Harber for information.

Hawkinsville—Bag Factory.—D. Rhodes contemplates the manufacture of fertilizer bags and corn sacks.

Jefferson—Oil Mill.—A stock company has been organized to build a cottonseed-oil mill and made application for charter. Further information will be given next week.

Macon—Furniture Company.—Incorporated: The Sanders Furniture Co. has been incorporated, with capital stock of \$4000, to deal in furniture, etc., by James R. Sanders and L. Oscar Taylor.

Rome—Gas-plant Improvements.—The Rome Gas Co. contemplates erecting new retorts, installing new machinery and laying new mains, and will probably decide to expend several thousand dollars on the improvements.

KENTUCKY.

Benton—Mining Company.—The Kentucky Mining Co. has been organized for mining

purposes with W. M. Reed, president; D. B. Ferguson, vice-president; S. L. Palmer, secretary-treasurer, and E. Barry, manager.

Danville—Ice Factory.—James C. Allen, of Louisville, Ky., contemplates the erection in Danville of a 10-ton ice factory.

Harlan—Telephone Company.—The Mountain Telephone Co. has been incorporated, with H. C. Clay as president; Prof. W. C. Clemens, secretary and treasurer, and John B. Hurst, general manager, for the purpose of establishing system.

Lexington—Lumber Mills, etc.—The Lexington Lumber & Manufacturing Co. has been incorporated, with capital stock of \$20,000, by J. Will McCormick, of Pleasant Hill, Mo.; Joseph M. McCormick, of Lexington; W. R. Cockrell and others, for the manufacture of lumber and other building material.

Versailles—Telephone System.—W. R. Proctor, Breck B. Smith and Charles R. Powell have incorporated a company to construct a telephone system.

Winchester—Pipe Factory.—J. W. Hollar and R. H. Patterson have commenced the manufacture of a patented smoking-pipe.

LOUISIANA.

Blainstown—Cotton Gin.—Geo. J. Reiley will probably erect a cotton gin next season.

New Orleans—Trunk Factory.—The Louisiana Trunk Manufacturing Co., Limited, capital stock \$25,000, has been incorporated for the purpose of manufacturing trunks, hand-bags, etc.; Hermann Davis, president; Henry Lyons, vice-president and manager.

New Orleans—Construction and Compress Company.—Incorporated: The New Orleans Construction & Compress Co., Limited, capital stock \$50,000, for general construction purposes, erection of compresses, etc. The directors are William W. Bierce, president; A. T. Snodgrass, vice-president, and Columbus Bierce, secretary-treasurer.

New Orleans—Sterilized-milk Plant.—Col. R. A. Corbin will erect a factory for manufacturing sterilized milk.

New Orleans—Trading Stamps.—The Home Trading Stamp Co. of Louisiana, Limited, has been organized, with a capital stock of \$100,000, and H. B. Stevens, president; Leopold Levy, vice-president, and J. Campbell Spotts, secretary.

Opelousas—Ice Factory and Bottling Plant.—The establishment of a five or ten-ton ice factory and a bottling plant is contemplated. C. H. Miller can give information.*

MARYLAND.

Baltimore—Soap Factory.—Lucern C. Oden'hal, Solomon N. Frank, Moses N. Frank, Lewis N. Frank and Edward J. Redly have incorporated the Franco-American Soap Co., with capital stock of \$50,000, for the manufacture of soap.

Baltimore—Copper Works.—The Baltimore Copper Smelting & Rolling Co. will erect a new copper-refining furnace at its electrolytical department to cost \$8000.

Baltimore—Electric Plant.—The sale of the Central Railway to the Baltimore City Passenger Railway Co. will lead to extensive improvements to both roads; the power machinery will be concentrated in one or two big houses, lines will be extended, new cars be bought, old cars renovated, etc.

Bel Air—Telephone Company.—Incorporated: The Creswell Telephone Co., capital \$1200, by Joseph B. Hanway, John McKee and others.

Cumberland—Pulp Plant.—It is stated that the Morrison & Coss Paper Co., of Tyrone, Pa., will remove its pulp plant to Cumberland.

Hyattsville—Water Works.—The city will vote on issuing bonds for \$25,000 for the construction of water works. Address the mayor.

Laurel—Clothing Factory.—E. Rosenfeld has put new machinery in his nightrobe factory.

Pocomoke City—Water and Light Plants.—The city will petition the legislature for authority to issue bonds to the amount of \$30,000 to pay for the construction of water works and erection of electric-light plant. Address the mayor.

Williamsport—Electric-light Plant.—The city will vote on issuing \$20,000 in bonds for the construction of electric-lighting and heating plants. Address the mayor.

MISSISSIPPI.

Hattiesburg—Electric-light Plant.—Dunbar & Son will install an electric-lighting plant.

Mount Carmel—Cotton Compresses.—S. S. Dale, of Mount Carmel, Miss., and W. R. Bourn, of Bournham, Miss., contemplate the erection of compresses for cylindrical baling.

Vicksburg—Land Improvement, etc.—T. R. Foster, Peter J. Schaefer and Frank W. Mills have incorporated the Southern Land & Improvement Co., with capital stock of \$250,000, for land improvement and other purposes.

MISSOURI.

Ewing—Creamery.—Incorporated: The Ewing Creamery Co., capital stock \$3400, by J. S. Shackelford, Henry Tiemann, F. W. Hugemann and others.

Joplin—Milling Company.—Incorporated: The Kenwood Milling Co., capital stock \$20,000, by Edson J. Harkness, J. P. Michael and Julius C. Miller.

Kansas City—Furniture Factory.—J. L. Anernathy & Co., of Leavenworth, Kan., contemplate the removal of their large furniture factory to Kansas City.

Lees Summit—Mercantile.—Incorporated: The Powell Hardware Co., capital stock \$4500, by E. M. Powell, Jonathan Keirsey and R. J. Powell.

Montrose—Milling Company.—Incorporated: The Montrose Milling Association, capital stock \$6000, by J. N. Ballard, R. B. Wilson, O. F. Johnson and others.

Otterville—Lead Mining, etc.—J. B. Mercer, of Sedalia, Mo., and others are opening lead and zinc mines near Otterville.

Rich Hill—Spelter Plant.—The Cherokee-Lanyon Spelter Co., of St. Louis, will probably rebuild its burned \$125,000 spelter plant located near Rich Hill.

Rich Hill—Harrow Factory.—J. H. Brown, of Rural Retreat, Va., and J. C. Ringo, of Mexico, Mo., will organize a stock company with capital of \$25,000 to build a factory for manufacturing harrows. Address J. H. Brown, care of Paddock-Hawley Iron Co., St. Louis, Mo., or care of John Klumpp, Rich Hill.

Rothsville—Flour Mill.—Riddell & Stephens have improved their flour mill and will probably put in a 45-horse-power engine.

Springfield—Cold-storage Plant.—It is proposed to erect a cold-storage plant; A. D. Allen can give information.

St. Louis—Mining.—The New Era Mining Co., capital stock \$6000, has been incorporated by W. C. Eyster and others.

St. Louis—Paper Company.—Incorporated: The Security Safety Paper Co., capital stock \$10,000, by W. W. Ramsey, L. J. W. Wall and others.

St. Louis—Sand Company.—Incorporated: The Sample Sand & Improvement Co., capital stock \$30,000, by Caroline Sample, Z. W. Tinker, F. J. Sample and others.

St. Louis—Construction Company.—H. L. Morrell, A. R. Dillon, J. S. Walker and others have incorporated the Indianoma Construction Co., with capital stock of \$100,000.

St. Louis—Paving Company.—Incorporated: The St. Louis-Bernuda Asphalt Paving Co., capital stock \$14,000, by Stephen D. Rodgers, H. J. Dicklite, R. F. Rosey and others.

St. Louis—Implement Company.—Incorporated: The Lampel Land & Implement Co., capital stock \$30,000, by Caroline Lampel, J. W. Tinker, George Tinker and others.

St. Louis—Electrical Manufacturing Company.—Incorporated: The Mississippi Valley Electrical & Manufacturing Co., capital stock \$100,000, by Edward Buden, A. F. Itner and others.

St. Louis—Odoride Company.—Incorporated: The Odoride Co., capital stock \$10,000, by F. B. Aglar, H. A. Haley and J. H. Hewitt.

St. Louis—Coal Company.—Incorporated: The McDermott Coal Co., capital stock \$20,000, by M. P. McDermott and others.

Webb City—Lead and Zinc Mining.—F. J. Hart, of Boston, Mass., has purchased for himself and others eighty acres of lead and zinc lands and organized a \$100,000 stock company (the Narragansett Mining Co.) to develop same. The company will erect a large plant.

Webb City—Mining Company.—Incorporated: The Lillian Leigh Mining Co., capital stock \$4000, by F. H. Leigh and others.

NORTH CAROLINA.

Albemarle-Cotton Mill.—J. W. Cannon, D. F. Cannon, J. S. Edrd and K. J. Davis have incorporated the Wisconsin Mills Co., capital stock \$175,000, to build and operate a cotton mill. The company will erect the \$200,000 mill noted lately as proposed by J. W. Cannon. Address J. S. Edrd, Albemarle.

Charlotte-Publishing Company.—J. W. Jenkins and others will organize a company to publish a newspaper, to be called the "Tar Heel Knight."

Charlotte-Gas Plant.—The Charlotte Electric Light & Power Co. has amended its charter, acquiring the privilege to manufacture gas, and will apply for right to lay pipes in the streets, etc. A new gas plant will be erected when the privileges are secured; E. D. Latta, president.

Elizabeth City-Net and Twine Mill.—The Elizabeth City Net & Twine Co. will rebuild its \$18,000 mill which was burned during the week; S. S. Fowler, treasurer.

Faith-Granite Quarry.—George Fisher is developing a quarry of snow-white granite.

Faith-Telephone System.—A company has been organized to extend telephone system to Salisbury. J. T. Wyatt can give information.

Faith-Wagon Factory.—R. F. Crooks has established a wagon factory and repair shop.

Franklin Cotton Mill.—The Sterling Cotton Mills will put in 4000 additional spindles; now has 2980 in place.

Greensboro-Flour Mill.—The Greensboro Roller Mill Co. has been incorporated with capital stock of \$90,000.

Harden-Cotton Mill.—It is reported that the Harden Manufacturing Co. will double its machinery, which now consists of 2380 spindles, etc.

Huntersville-Cotton Mill.—The Anchor Cotton Mills will double its equipment, which is now 2500 spindles and 100 looms.

Moore County-Gold Mine.—Gold-bearing ores have been found on the property in Moore county of Rev. J. B. Richardson, of High Point, N. C. Possibly developments may be inaugurated.

North Carolina-Corundum Mines, etc.—The National Abrasive Manufacturing Co. has been incorporated, with capital stock of \$1,000,000, for mining corundum and manufacturing from said material, etc. The company has 20,000 acres of land in North Carolina which are underlaid with corundum, copper, tale, chrome iron and other minerals, all of which will be developed. W. S. Taylor, of Philadelphia, Pa., is president, and George B. Kirkbride, of New York city, secretary-treasurer.

Raleigh-Tale Mining, Manufacture, etc.—Incorporated: The Carolina Soapstone Co., capital stock \$100,000, for the purpose of mining and manufacturing tale, etc.; incorporators are O. E. Maltby, John W. Hindsdale, A. P. Massey, W. B. Snow, A. Snow and F. H. Rushee. Address the last named.

Rockford (not a postoffice)—Mining Company.—The Alpha Mining Co. reported last week as incorporated has for its incorporators L. McKane, of Oil City, Pa.; J. G. Burris, of Rockford, N. C.; W. M. Asher and Elbert Wallace, of Wilkesboro, N. C., and George B. McKane, of Alexandria, Va. Address W. M. Asher, Wilkesboro, N. C.

Scotland Neck-Knitting Mill.—M. A. Smith will establish a knitting mill.

Wilmington-Mercantile.—Incorporated: The Worth Co., capital stock \$500,000, by B. C. Julia A., Charles V., James S. and Geo. C. Worth, for mercantile purposes.

SOUTH CAROLINA.

Aiken-Ice Factory.—Wm. McCauley, Jno. L. Vandiver and Fred Kaiser propose the organization of a \$10,000 stock company for the purpose of erecting a 10-ton ice factory.

Beaufort-Phosphate Mines.—The Central Phosphate Co., reported last week, has a paid-up capital of \$100,000, and will confine its operations for the present to mining phosphate; Alphonse Cujot, president.

Charleston-Mercantile.—Incorporated: The Dill-Ball Co., capital stock \$15,000, by James T. Dill, J. Aloys Ball and John Rivers.

Charleston-Light and Water Plants.—Application has been made to the legislature for a charter for the Charleston Light & Water Co., which purposes the construction of lighting and water plants, erection of gas works, etc. Dr. J. S. Lawrence can probably give information.

Gaffney-Grist Mill, Saw Mill, etc.—M. C. Lipscomb is now replacing his saw mill that was burned recently; will also erect a cotton gin, cotton press and grist mill.

Gaffney-Woolen Factory and Knitting Mill.—The establishment of a knitting mill and a woolen factory is contemplated. H. D. Wheat can give information.

Rock Hill-Machine Works.—The Enterprise Machine Works & Supply Co., to operate established plant, has been incorporated by John Gelzer and Paul Workman.

Spartanburg-Flour Mill.—T. F. Hunt & Co., of Greenville, S. C. (T. F. Hunt, W. A. Adams and D. W. Ebaugh), will build a flour mill (roller) of 60-barrel capacity daily; machinery contracted for. Address W. A. Adams, Spartanburg.

TENNESSEE.

Columbia-Telephone System.—By an error we noted the Citizens' Telephone Co. last week as organizing; the company has been in operation for nearly two years and is thoroughly established in Maury county.

Embsville-Iron Furnace Improvements.—The Embsville Iron Co., Limited, writes that it will not build a new furnace, as has been reported, but will repair and reline its old one.

Franklin-Machine Shop.—Denson & Son, of Spring Hill, Tenn., have removed their machine shop to Franklin and enlarged the plant.

Harriman-Brick Works.—The Emory Brick Co., M. W. Emory, president, will remodel its plant for the manufacture of brick, making it suitable for producing paving brick.

Maryville-Woodworking Factory.—J. B. Ziegler and W. H. Geers, of Knoxville, Tenn., have leased building at Maryville and put in machinery for the manufacture of collins, caskets, etc.

Memphis-Refrigerator Works.—D. T. Kirkpatrick, of Texas (formerly of Galveston), proposes the purchase of the Memphis Car & Foundry plant and its remodeling into a plant for the manufacture of refrigerators, ice-cream freezers, churns, etc. The Kirkpatrick Manufacturing Co. will be organized, with capital stock of \$100,000, if Mr. Kirkpatrick succeeds in securing the plant referred to.

TEXAS.

Angleton-Sugar Mill.—Henry Grimm is reported as investigating with a view to the erection of a central sugar factory.

Austin-Cannery.—A cannery will be established. For information address George A. Hill, secretary Commercial Club.*

Beaumont-Creosoting Works.—The International Creosoting & Contracting Co. will remove its large plant to Beaumont from Galveston.

Beaumont-Irrigation System.—Miss Jeanette Stengle, S. H. Van Wormer and Frank Cooley are forming a company to construct irrigation canal and pumping plant for Pine Island bayou.

Beaumont-Ice and Light Plant.—The Beaumont Ice, Light & Refrigerating Co. is enlarging its plant and will add a new condenser and dynamo, expending about \$5000 on the improvements.

Beaumont-Mercantile.—The Simmons Hardware & Mill Supply Co., capital stock \$10,000, has been incorporated by A. Tomlinson, J. B. Merritt and J. B. Simmons.

Belton-Gold Mine.—It is reported that M. L. Crawford will develop gold and silver deposits in Llano county.

Brazoria-College.—Chartered: The Brazoria College, capital stock \$2000; incorporators, Branch T. Masterson, J. G. Smith, J. R. Mitchell and others.

Dallas-Baking-powder Factory.—Incorporated: The Kitchen Queen Baking Powder Co., capital stock \$20,000, to manufacture baking powders, grocers' sundries and specialties; incorporators, F. N. Foot, E. H. Foot and W. J. Townsend. Address Mr. Foot.

Dallas-Manufacturing.—Incorporated: The Rose Manufacturing Co., capital stock \$50,000, to manufacture and sell goods, wares and merchandise, agricultural and farm products; incorporators, J. D. Crawford, of Harrison county; P. A. Norris, of Hunt county, and I. E. Rose. Address I. E. Rose.

Dublin-Mercantile.—Incorporated: The Dublin Mercantile Co., capital stock \$25,000, by J. H. Latham, W. W. Higginbotham, W. H. Williams and others.

Elgin-Electric-light Plant.—L. L. Puckett contemplates the construction of an electric-light plant.

Elgin-Coal Mine.—Frank Goodrich, civil engineer for the Houston & Texas Central Railroad, will develop a coal mine near Elgin.

Fort Worth-Land Company.—The Trinity Land Co., capital stock \$20,000, has been in-

corporated by L. W. Frisbie, D. T. and J. E. Bomar.

Gainesville-Compress.—The National Compress Co., of New Jersey, George H. McFadden, president, will build in Gainesville a cotton compress.

Georgetown-Flour Mill.—J. F. Towns has purchased and will put new machinery in the Georgetown roller mill.

Jefferson-Mercantile.—Incorporated: The Sherrell Trading & Commission Co., capital \$2500, by Lee Sherrell, J. A. Henderson and A. A. Fort.

Marshall-Carbonating Plant.—J. Grosman & Son will establish a plant for the production of elder, vinegar, flavoring extracts and carbonated drinks.

McKinney-Water Works.—The city will issue \$20,000 in bonds for the construction of water works. Address the mayor.

McKinney-Grain Elevator.—The Collin County Mill & Elevator Co. is improving its grain elevator and adding new machinery to its flour mill.

Port Arthur-Grain Elevator.—The Kansas City, Pittsburg & Gulf Railway Co. is preparing to commence the construction of the proposed grain elevator; the elevator is to have a capacity of 700,000 bushels; Robert Gillham, manager, Kansas City, Mo.

Quinn-Mercantile.—Incorporated: The Evans & Baker Co., capital stock \$25,000, by J. D. Baker, M. F. Evans and J. F. Womack.

San Antonio-Mercantile.—Incorporated: M. Half & Bro., for mercantile purposes, by M. Half, S. Half and A. H. Half; capital stock \$500,000.

San Elizario-Flour Mill.—The Great Western Manufacturing Co. will build a flour mill.

Sherman-Oil Mill, etc.—Thiessen & Co., John Jephcott and W. L. Noble are organizing a \$50,000 stock company to erect a cottonseed-oil mill of forty tons daily capacity. Address Thiessen & Co.

Texas City-Terminals, etc.—Incorporated: The Texas City Terminal Co., capital stock \$200,000, for constructing channels, docks, etc., operating suburban or belt lines of railways, constructing and operating elevators, etc.; incorporators, Benjamin P. Crane, of Duluth, Minn.; Seth E. Tracy, of Houston, Texas, and David H. Wilson, of Texas City. Address either of the Texas incorporators.

Texas City-Town Company, etc.—Incorporated: The Texas City Co., capital stock \$200,000; purpose, constructing, owning and operating deep-water channels connecting the Gulf of Mexico along and across Galveston bay to Texas City, construction of docks and railroad tracks, erection of buildings, supply of water, gas and electric lights or power, etc.; incorporators, B. P. Crane, of Duluth, Minn.; Seth E. Tracy, of Houston, and David H. Wilson, of Texas City. Address either of the Texas incorporators.

Wharton-Mercantile.—Incorporated: The G. C. Gifford Mercantile Co., capital stock \$75,000, by G. C. Gifford, Abel H. Pierce, R. B. Huston and R. E. Vineyard.

Wills Point-Mercantile.—Incorporated: The Rose Dry Goods Co., capital stock \$20,000, by J. E. Rose, J. D. Crawford and A. Keller.

VIRGINIA.

Danville-Repair Shop.—W. P. Horner & Co. will put in new machinery, such as band saws, lathes, etc.*

Farmville-Tobacco Factory.—Paulett, Son & Co. will rebuild their tobacco factory which was recently burned; new plant will cost \$12,000.

Newport News-Bridges, etc.—The city council contemplates the issuance of \$40,000 of bonds for certain bridges and tunnels. Address the mayor.

Newport News-Telephone System.—Incorporated: The Newport News Mutual Telephone Co., capital stock \$10,000, and M. B. Crowell, president; N. C. Watts, secretary, and Isaac Witz, treasurer. Company will establish system at once.

Norfolk-Land Improvement, Bridge, etc.—H. L. Page & Co. have purchased the property of the Tanners Creek Drawbridge Co., including certain lands and water rights, and it is reported that a company will be organized, with capital stock of \$25,000, to improve the property. It is said that a 60-foot boulevard (shelled) will be constructed, also a \$6000 bridge, etc., at Tanners Creek.

Petersburg-Water Meters.—The city council has adopted a resolution to buy and install water meters; \$15,000 will be expended.*

Portsmouth-Mercantile.—Incorporated: The Brandt Co., capital stock \$40,000; M. A. Brandt, secretary.

WEST VIRGINIA.

Athens-Telephone Line.—A company will be chartered, with capital stock of \$5000, to construct and operate telephone line between Princeton and Athens, etc.; incorporators to be R. G. Meador, J. F. Holroyd and W. J. Lilly, of Athens, and William M. Mahood, of Princeton. Address Mr. Lilly.

Crown Hill-Coal Mines, etc.—Incorporated: The Poloue Coal Co., capital stock \$50,000, to open mines, manufacture coke, etc., operating the plant formerly owned by the Crown Hill Colliery Co. Incorporators are Edwin Poloue, Edwin C. Poloue, Dorothy Poloue, James H. Nash and others.

Morgantown-Glass Works.—The Morgantown Glass Co. has applied for charter, capital stock being \$10,000, the incorporators being W. N. Binnert, of New York; W. H. Bannister, of Postoria; Frank Bannister, Frank Cuples and Leopold Sigwart, of Morgantown. The company will put in operation a plant to employ 125 men, producing cut and pressed ware.

BURNED.

Alexandria, La.—Alexandria Coopers Co.'s plant; loss \$20,000.

Alto, La.—Cotton gin of R. H. Brown.

Atlanta, Ga.—Hat and cap factory of Mr. Goldstein, corner of Decatur and Collins streets; loss \$4000.

Donaldsonville, Ga.—Donaldson Lumber Co.'s mill; loss \$40,000.

Elizabeth City, N. C.—Elizabeth City Net & Twine Co.'s factory; loss \$18,000.

BUILDING NOTES.

Augusta, Ga.—Hotel.—Johannsen & Leitner have prepared plans and specifications for hotel for Leonard F. Verdery; building to have electric fixtures, baths on every floor, etc.

Austin, Texas-Natorium.—Bids will be received for all plumbing, machinery, heating plant, etc., necessary to equip a modern natatorium; also bids for erection of building. For plans and information address George A. Hill, secretary Commercial Club.

Austin, Texas-Business Building.—Michael Butler will build a three-story business house.

Baltimore, Md.—Church.—Contract has been awarded to E. M. Noel for the erection of a \$50,000 building for Sharp Street M. E. Church; plans by A. H. Bieler.

Baltimore, Md.—Store, etc.—A store and school building will be erected at North Walbrook, at a cost of \$7000; Frank H. Callaway prepared plans and has contract.

Baltimore, Md.—Warehouse.—The National Mining & Milling Co. will build a \$10,000 warehouse.

Barnesville, Ga.—Church.—The erection of a church is contemplated. Address Rev. W. S. Stevens.

Beaumont, Texas-Business Building.—A. B. Seale will erect a brick business block.

Birmingham, Ala.—Theater.—Reports say that a large theater will be built; Charles Locke can probably give information.

Birmingham, Ala.—Dwellings.—Randolph Lumber Co. has permit to build \$5000 dwelling.

Bolivar, Mo.—Business Building.—L. J. Heckenlively, of Springfield, Mo., is preparing plans for business block for J. B. Upton, of Bolivar.

Calro, W. Va.—Hotel.—Charles McKnight and others have incorporated the Calro Hotel Co., with capital stock of \$10,000, to build and operate a hotel.

Charlotte, N. C.—Warehouse.—The Charlotte Bonded Warehouse Co. is about to ask for bids on the erection of its proposed warehouse.

Charlottesville, Va.—Dwelling.—R. H. Rawlings will erect a residence. For information address J. Q. Dickinson, Norfolk, Va.

Cleburne, Texas-Hotel.—W. L. Beckham, of Greenville, Texas, contemplates the erection of a \$40,000 hotel in Cleburne.

Cleburne, Texas-Dwellings.—C. B. Stratton will erect a cottage; J. M. Hall will erect a residence; J. D. Olgier will erect residence; A. C. Ford will build a dwelling; J. H. Mims will erect a dwelling, and T. L. Waugh will erect a dwelling.

Dublin, Ga.—Depot.—The Wrightsville & Tennille Railroad will build a depot in Dublin; T. Perkins, president.

Flovilla, Ga.—Hotel.—Colonel Scott will build a hotel.

Greensboro, N. C.—Residence.—J. C. Murchison will erect a \$3000 residence.

Knoxville, Tenn.—Factory Building.—Cal Johnson has contracted for the erection of a three-story 40x131-foot building, to be used as a pants factory by Cowan, George & Co.

Knoxville, Tenn.—University Buildings.—The trustees of the University of Tennessee have decided upon the erection of three new buildings; one to be a mechanical building, containing machine shops, pattern shops, blacksmith shop, foundry, hydraulic laboratory, electrical laboratory, general laboratory, boiler, engines, dynamos, etc.; one to be a women's dormitory, with model kitchen, well-equipped gymnasium, etc., and one to be a men's dormitory of twenty-five rooms. For information address Dr. Chas. W. Dabney, president University of Tennessee.

Montezuma, Ga.—School.—The city will build a \$10,000 schoolhouse. Address the mayor.

Nashville, Ga.—Courthouse.—Sealed proposals will be received until March 21 for the construction of a courthouse after plans and specifications at office of F. M. Shaw, chairman, or office of the architect, W. Chamberlin & Co., Knoxville, Tenn.

New Martinsville, W. Va.—Residence.—Proposals will be received until February 19 for the construction of a frame residence for W. R. Fitch; plans on file at office of New Martinsville Gas Co.

New Orleans, La.—Dwellings.—Mrs. F. Short will build \$3000 residence; Arthur Adams a \$1350 frame cottage; Charles Will a \$1100 cottage.

Newport News, Va.—Mr. Keaton, street commissioner, will erect a brick building.

Oxford, Fla.—Mercantile Building.—Brown & Sparkman will erect a two-story brick mercantile building.

Raleigh, N. C.—Office Building.—W. R. Tucker will erect, it is reported, a store and office building.

Sedalia, Mo.—Depot.—The Missouri Pacific Railroad will build a depot 210x46 feet; E. Fisher, engineer, St. Louis.

Springfield, Mo.—Residence.—L. J. Heck will be preparing plans for a \$3000 residence for L. S. Meyers.

St. Louis, Mo.—Dwellings, etc.—Wm. Voelkel will erect three dwellings to cost \$10,500; Westinghouse Air Brake Co., a blacksmith shop to cost \$5700; Mary E. Beltz, a dwelling to cost \$5000; A. K. Humphreys an \$8000 dwelling, and James E. True a \$9000 dwelling.

Texas, Md.—St. Joseph's R. C. Church will be improved at a cost of \$2500; Rev. R. C. Campbell, pastor.

Valdosta, Ga.—Residence.—Eugene West will build a residence.

Versailles, Ky.—Opera-house.—An \$8000 opera-house will be erected; probably W. R. Proctor can give information.

Washington, D. C.—Residences, etc.—Abner & Drury will erect a brick and iron building, one story, 72x40 feet.

Washington, Ga.—Orphanage.—E. F. Barrows will prepare plans and specifications for a new dormitory orphanage for St. Joseph's Orphanage.

Wilmington, N. C.—Clubhouse.—Wm. A. Wilson, Jr., asks for bids on the erection of a clubhouse after plans for H. E. Bonitz.

RAILROAD CONSTRUCTION.

Railways.

Atlanta, Ga.—It is stated that work is to begin on the proposed Belt Line in the suburbs in a few weeks. It is to be nine miles in length and operated by steam power. John M. Egan, of Savannah, Ga., is one of the directors of the company.

Augusta, Ga.—A charter has been granted to the Augusta Southwestern Railroad Co., which intends extending the Augusta Southern road through Southern Georgia. The total length is to be about 100 miles, to Cordele, in Dooly county. The line will include several short railroads now in operation. The capital of the company is to be \$1,000,000, and it will form a division of the South Carolina & Georgia Railroad. James U. Jackson, of Augusta, is the principal promoter of the enterprise.

Baltimore, Md.—President J. M. Hood, of the Western Maryland Railroad Co., informs the Manufacturers' Record that it is proposed to build the branch from Hagerstown to Altenwald as soon as possible. No contracts have been let as yet, and it is expected that 70-pound rails will be used. The branch will be about ten miles long.

Bedford City, Va.—The announcement is made that a company may be organized to

construct a railroad line between Bedford City, Va., and Lynchburg.

Belton, Texas.—The Gulf, Colorado & Santa Fe Railroad Co. has contracted with S. L. Maley to build a short branch to quarries in the vicinity.

Bentonville, Ark.—The Gulf, Arkansas & Northwestern Railroad Co. has been chartered, with a capital of \$450,000, to build the proposed line from Bentonville through Benton county to the State line. Among those interested are J. M. Bohart, C. M. Robinson, of Bentonville; F. C. Parker, of Chicago, and Frank Fanning, of St. Joseph, Missouri.

Bristol, Tenn.—It is reported that a company may be organized to build a branch line from the Morristown & Cumberland Gap Railroad to Bristol by way of Mooresburg, Tenn.

Cary, N. C.—It is reported that W. B. Duke and others, of Durham, N. C., are planning to build a railroad from Cary to timber lands in Harnett county.

Columbia, S. C.—The Lexington Railway Co. has been formed, with \$25,000 capital, to build an electric line in Brookland, S. C., a suburb of Columbia, and in a portion of Lexington county.

Demopolis, Ala.—It is reported that Abercrombie & Williams have secured the contract for the proposed railroad between Demopolis and Linden, a distance of twenty-five miles. This line will be a connection of the Dayton & Faunsdale Railroad, being promoted between the towns named by L. L. Siddons, of Siddonsville, and others.

Douglas, Ga.—It is reported that the J. S. Bailey Lumber Co., of Douglas, may build a railroad between Douglas and Fitzgerald, Ga., a distance of about thirty miles. It would be an extension of the Douglas & McDonald Railroad, now controlled by this company.

Fort Smith, Ark.—It is reported that the Kansas City, Pittsburg & Gulf Railroad has begun work on the proposed railroad between Oak Lodge and Fort Smith, a distance of fifteen miles. R. Gillham, at Kansas City, Mo., is general manager.

Fredericksburg, Texas.—The city of San Antonio has raised the amount required by the company promoting the railroad line between Fredericksburg and San Antonio, which will be an extension of the Colorado Valley road. A. L. Patton and L. Hager, of Fredericksburg, are among the promoters.

Glen Mary, Tenn.—It is reported that C. H. Williams, of Georgetown, Ky., and Jas. M. Dobbins, of Cincinnati, O., are interested in the proposed railroad through Fentress county, between Glen Mary and Monterey, Tenn.

Loganville, Ga.—Vice-President E. St. John, of the Seaboard Air Line (Portsmouth, Va.), informs the Manufacturers' Record that work is likely to be begun soon between Loganville and Lawrenceville to connect with the Seaboard Air Line. The business men of Lawrenceville are promoting the enterprise, and the people in the towns mentioned will pay for a portion of the work.

Lonoke, Ark.—The company promoting the proposed line from the town of Wooley to Lonoke, already referred to in the Manufacturers' Record, has been chartered under the title of the White River, Lonoke & Western. The road is to be fifty miles long, and the capital stock is \$350,000. Among those interested are W. N. Wooley, of Jacksonville, Ark.; J. W. Blackwood, of Little Rock, and J. P. Eagle, of Lonoke.

Minden, La.—It is reported that contracts have been let to Michael Hunt for grading sixteen miles of the railroad line between Minden and Cotton Valley. This road will be a portion of the Minden Railroad extension to Stamps, Ark. T. Crichton, at Minden, is interested.

Mobile, Ala.—The Mobile, Jackson & Kansas City Railroad has been graded to Merrill City, a distance of fifty miles from Mobile, and track has been laid a distance of forty miles. The Gulf City Construction Co., of Mobile, is building the line.

Montgomery, Ala.—It is reported that work is to begin on the Montgomery, Hayneville & Camden Railroad about February 16. This road will be about seventy-five miles long, extending between the towns mentioned. S. D. Bloch, at Montgomery, is general manager of the company.

Moundsville, W. Va.—Marshall county will vote March 5 on the question of issuing \$100,000 in bonds to aid the proposed Pittsburg, Connellsville & Wheeling Railroad from the Pennsylvania State line to Benwood, W. Va., by way of Moundsville.

Norfolk, Va.—The Norfolk, Willoughby Spit & Old Point Railroad Co. is arranging

to extend its electric line in the city about one mile. L. H. Page is one of the directors of the company.

Norfolk, Va.—It is reported that the Norfolk & Southern Railway Co. has decided to extend its line from Snowden, N. C., to Powell's Point, N. C., a distance of twenty-five miles. M. K. King is general manager of the company at Norfolk.

Oklahoma City, Okla.—It is reported that B. F. Johnson & Bro., of St. Elmo, Ill., have secured the contract to build a railroad between Oklahoma City and Sapulpa, I. T. The road will be 108 miles long, and is to be completed within seven months. It is reported that it is to be operated by the St. Louis & San Francisco Company, of which D. B. Robinson, at St. Louis, Mo., is president.

Pensacola, Fla.—It is reported that Cincinnati parties have become interested in a plan to build a railroad from Pensacola to Memphis, Tenn., and have applied to the city authorities for terminal facilities.

Pensacola, Fla.—The Demopolis & Pensacola Railroad Co. has been incorporated to build a line between the towns mentioned, through the northern portion of Florida and Southern Alabama. The capital is \$150,000. John C. Webb, John Anderson and W. H. Welch are directors of the company.

Portsmouth, Va.—It is reported that the Portsmouth, Pig Point & Newport News Railroad Co. is about to commence work on its electric line between Portsmouth and Pig's Point. A ferry will be used in connection with the road to Newport News. Henry Kim and R. H. Norfleet are in charge of the construction.

Raleigh, N. C.—The railroad between Raleigh and Lillington, N. C., in which John A. Mills, of Raleigh, and others are interested, has been surveyed. It will be thirty miles long.

Reidsville, Ga.—Surveys are being made for a railroad from Reidsville to a connection with the Florida Central & Peninsular Railroad at Dorchester Station. Perkins Bros., of Harrison, Ga., are engineers.

Saluda, S. C.—The Saluda & Johnston Railroad Co. has been formed to build a railroad between Saluda and Johnston, S. C. Among those interested are W. S. Allen, D. F. Lewis and A. J. Crouse, of Saluda. The capital is to be \$35,000.

Selma, Ala.—The Atlanta & Alabama Air Line Railroad has been graded a distance of thirteen miles and tracklaying is to begin at once. R. M. Mitchell, of Atlanta, Ga., is president of the company.

Terrell, Texas.—It is reported that President E. H. R. Green, of the Texas Midland Railroad Co., has determined to build the proposed extensions from Ennis to Dallas and from Ennis to Waco. Mr. Green may be addressed at Terrell.

Vernon, Texas.—The El Reno & Southwestern Railroad Co. has been chartered, with \$1,000,000, to build a railroad from a connection with the Fort Worth & Denver Railroad to El Reno on the Choctaw, Oklahoma & Gulf. Among those interested are J. R. Morrison and A. F. Sewell, of El Reno, Oklahoma.

Victoria, Texas.—Work has begun on the Guadalupe Valley Railroad between Victoria and Alligator Head, on the Gulf of Mexico. The first part of the line will be fifty-two miles long. Uriah Lott is one of the promoters of the line. It is stated that the company has arranged for docks at the tidewater terminus and has secured \$500,000 in subscriptions to the enterprise.

Washington, D. C.—The Baltimore & Washington Transit Co. is making arrangements to build an electric line from the District of Columbia to the Pennsylvania State line, through Prince George's, Carroll, Montgomery and Frederick counties. N. Winslow Williams, Fidelity Building, Baltimore, is one of the promoters of the enterprise.

Wilmington, N. C.—The Wilmington Seacoast Railroad Co. has determined to extend its line a distance of three miles. George R. French is president of the company.

Winfield, Ala.—W. H. Spradlin is making surveys for a railroad to extend from Winfield to Tuscaloosa, Ala., or Aberdeen, Miss., in the interest of the Mississippi Valley Coal & Railroad Co. This company intends constructing the line to give an outlet from the coalbeds in Marion county to the market. Henry Wellman, president of the Teutonia Savings Bank of New Orleans, is reported as president of the company.

Wister, I. T.—The Choctaw, Oklahoma & Gulf Railroad Co. has let a contract for a branch from Wister to a connection with the Kansas City, Pittsburg & Gulf system. The branch is to be seven miles long and

will be built by the Bracey-Wells Construction Co., of Chicago. Henry Wood, at South McAlester, I. T., is manager.

Street Railways.

Baltimore, Md.—The Consolidated Railway Co. has secured a franchise to build its proposed extension in the western portion of the city. William A. House is president of the company.

Baltimore, Md.—The City Passenger Railroad Co., which has recently purchased the Central Railway, may extend this division in the northeastern section to Clifton Park. W. S. Franklin is president of the company.

Charlotte, N. C.—The Charlotte Electric Railway Co. has determined to extend its line on several streets in the city. E. D. Latta is president of the company.

Corsicana, Texas.—M. M. Bright, one of the promoters of the proposed street railroad, informs the Manufacturers' Record that this road will be five miles long and that construction work will begin within ninety days. The Patton electric system will be used. No contracts have been let as yet.

Hannibal, Mo.—G. W. Chance, of Philadelphia, advises the Manufacturers' Record that the Hannibal Traction Co. has floated bonds to extend its electric line in the suburbs. D. Thompson, of Hannibal, is also interested. Mr. Chance's address is 14 South Broad street, Philadelphia.

Vicksburg, Miss.—Percival Steele, of Chicago, and others have secured a franchise to build an electric railroad in the city. At least four miles are to be completed during the present year and work is to be begun within the next five months.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. THE MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Bag Machinery.—See "Cotton-mill Machinery."

Bag Machinery.—W. J. Turnbull & Co., Roanoke, Va., want prices on dies, etc., used in manufacturing tobacco bags.

Boiler and Engine.—G. W. Marvon, Bullock, N. C., wants to buy a 20-horse-power boiler and engine, return tubular preferred, with detachable boiler of 15 horse-power.

Bottling Equipment.—C. H. Miller, Opelousas, La., wants estimates on cost of bottling equipment.

Bridge.—The city of Atlanta, Ga., and the Southern Railway will build a steel viaduct across street. Plans and specifications have been agreed upon. For information regarding proposals address R. M. Clayton, city engineer, Atlanta.

Bridge.—The city of Atlanta, Ga., will soon ask for bids on the construction of an iron and steel viaduct, to cost about \$70,000. Address the mayor.

Canning Machinery.—George A. Hill, secretary Commercial Club, Austin, Texas, is in the market for machinery for cannery.

Clothing Machinery.—See "Sewing Machines."

Cotton-mill Machinery.—D. Rhodes, Hawkinsville, Ga., wants information regarding the manufacture of fertilizer bags and corn sacks, cost of machinery, etc.

Electric-light Machinery.—A report says that L. Naudin, San Elizario, Texas, will buy a 40 to 50-light dynamo for placing in flour mill.

Elevator.—Bids will be opened February 16 for furnishing electric passenger elevator, in accordance with plans, etc., for United States building at Little Rock, Ark. Address supervising architect, Treasury Department, Washington, D. C.

Emery Wheels.—W. P. Horner & Co., Danville, Va., will want emery wheels.

Glass Bottles, etc.—T. B. Surface, Graham, Va., wants to buy glass bottles, rolling pins, etc.

Gear Cutter.—See "Machine Tools."

Ice Factory.—C. H. Miller, Opelousas, La.,

wants estimates on erection complete of a five or ten-ton ice factory.

Labels.—W. A. Billings, Durham, N. C., wants to buy labels for canned fruits.

Lumber Machinery.—H. M. Pfann, Peck, Fla., wants a traction engine to haul logs.

Laundry Machinery.—M. A. Dunlon, Palmyra, Mo., will want complete equipment for steam laundry, including power.

Lux-prisms.—Biggs, Watts & Co., Huntington, W. Va., want addresses of manufacturers of lux-prisms.

Machine Tools.—John Galzer, manager Enterprise Machine Works, Rock Hill, S. C., wants a second-hand gear cutter (Whitins); also set of dies for same, and a second-hand shaper, 14-inch, guaranteed in working order.

Paper Articles.—R. H. Dykers, Haynesville, N. C., wants to buy paper buckets, flowerpots and other articles.

Pump.—Harms Bros., Harms, Tenn., want to buy a centrifugal pump to drain coverdam.

Quarrying Machinery.—Le Laurin Bros., Pine Bluff, Ark., want to correspond with makers of stone-sawing machines for wheelstones.

Saw Mills.—G. H. Durham, Peck, Fla., wants a wood-splitting machine; also a machine to saw trees in the wood by power.

Sewing Machines.—W. J. Westbrooks, Danville, Va., wants addresses of makers of overall machinery.

Sewers.—Bids will be received until February 28 for the construction of sewers after plans and specifications now on file and ready for distribution. For full particulars address W. B. Henderson, president, Tampa, Fla.

Sewing-machine Attachments.—A. J. Barton, 1163 Main street, Richmond, Va., wants to correspond with the manufacturers of a spring attachment to be attached to sewing machines for supplying power.

Shafting.—Morgantown Glass Co., F. B. Banister, manager, Morgantown, W. Va., will be in the market for engine shafting.

Spring Motors.—See "Sewing-machine Attachments."

Steel Bell Towers.—Gullfoux & Blanc, New Iberia, La., want catalogues of steel bell towers, etc.

Stove, etc.—Bids will be opened February 18 for furnishing a hot-water boiler, range, etc., for Marine Hospital, Louisville, Ky. Address W. P. McIntosh, office Marine Hospital.

Tonsorial Supplies.—H. F. Cary, Box 422, Atlanta, Ga., wants addresses of dealers in barbers' supplies, that is, chairs and fixtures in general.

Traction Engine.—See "Lumber Machinery."

Water Meters.—The city of Petersburg, Va., will buy water meters to extent of \$15,000.

Water Works.—The mayor, Fulton, Ark., wants to correspond with contractors for water works, makers of windmills, power plants, piping, etc.

Woodworking Machinery.—W. P. Horner & Co., Danville, Va., want prices on band saws, rip and cut-off saws, turning lathe, entry wheels, etc.

The Globe Cotton Mill, at Rock Hill, S. C., has been purchased at public sale by Mr. W. B. Wilson, trustee for the bondholders, at \$40,000. The company will be reorganized and the mill put in operation.

Wise Men

read the advertising pages of the Manufacturers' Record carefully because they are always sure to find something of value; it may be a special sale, or an opportunity for investment, or some new machinery, or some one looking for a location for a factory, or a thousand and one things advertised that may concern you. Every man ought to study newspapers, not simply glance over them, but examine in detail the Manufacturers' Record, for instance, and he will be sure to find something that can be made profitable in his business. In its news columns and in its advertising pages he will find matter that may prove invaluable in his business operations.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters. Items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

No advertisements but those of a financial character will be accepted for the following page.

SOUTHERN BANKERS' WANTS.

Their Position as Described by Mr. George R. De Saussure.

In a communication to the Charleston News and Courier Mr. George R. De Saussure, of Atlanta, Ga., explains the objects of the recent convention of bankers at Atlanta. The following extracts may be of interest in view of the pending discussion of the currency. Mr. De Saussure writes:

"The federal government is responsible for the fact that the South has advocated free silver and other unsound currency theories, because it has always selfishly legislated in its own interest and not in the interest of the people. If the business men of the North would see to it that the banking and currency laws of the United States be so amended as to enable the people of all sections to have a bank-note issue suited to local requirements, under such safeguards as the federal government shall impose, they would soon find in the South a very safe and profitable place for their idle capital.

"Not only the people of the South, but the people of the whole nation, have suffered from the present system. Think of it! \$262,000,000 recently spent to keep the government in the banking business; add to this the loss the nation has sustained in the last five years, and you have a sum which should startle even the strongest advocate of the present so-called system.

"Personally, I am for a gold basis, and opposed to the free coinage of silver, but were I in Congress I would never vote for any measure which did not restore to the individual States the sole right to charter all banking corporations, because I believe that by the usurpation of charter rights the federal government has brought the country into its present trouble. I do not believe that the people should ever permit banks of issue except under State charters. I believe that if banks are allowed under federal articles of incorporation to issue on commercial assets, as is now proposed under various plans, that in a very short time the banks will become so powerful as to be able to force Congress to remove virtually all restrictions as to issue, and the country be cursed with a period of inflation, and consequent crash and ruin. If such a thing as this should happen the individual States would be powerless to protect themselves. Therefore I say that in order that the individual States may protect themselves they should have the right to create or destroy the banks of issue. If under the federal law permitting State banks to issue the banks used the privilege conservatively, safely and for the best interests of the people of the State, then they should be fostered and encouraged, but if, on the other hand, they should abuse the privilege, and the people suffer, then their charters should be at once forfeited. If the individual States are given this check on the federal power over the circulating medium (banknotes), and a system is established which will cause all banknotes to be redeemed at the counter of the bank of issue, and at a redemption center in the State, which will under sound and scientific management permit banks to issue on their credit to a limited amount, which will establish

in each State one strong central bank to act as the reserve and redemption agent of the other banks of the State, with an unlimited power of issue on fixed securities in emergencies, such as commercial crises and bank or monetary panics, which will permit banks with a paid-up capital of \$200,000 and over to establish branches in the State in which the parent bank is located, I believe the interests of all the people could be protected, and a sound, uniform and elastic currency result. Under such a system the federal government would be (for the general welfare) exercising such a control and regulation of the banknotes as would secure soundness and uniformity. This is as far as the individual States should allow the federal government to go in the exercise of its undoubted power over all forms of money (paper or coin), because if it seeks charter rights to more fully carry out the control, it demands a power which the general welfare does not demand that it should exercise, and which the individual States are fully competent to exercise for the purpose of promoting the general welfare.

"It appears to me that in all the currency and banking systems we have had in this country both legislators and jurists have overlooked the solemn duty of Congress to the people, and regarded only the government finances or the demands of the banks. In chartering the first bank of issue the government usurped charter rights to establish an instrument which proved itself capable of working ruin and disaster to the people, and finally its own fall. In this case the government carried its power over anything to circulate as money too far, and as a result a centralized system of banknotes was established, which was unjust and tyrannical. When the government permitted banknotes to circulate as money, issued by State banks, without exercising such supervision and control as would secure soundness and uniformity, it utterly failed in its duty to the people. Now between these extremes lies the true system, the system which is in conformity to the structure and composition of our dual form of government (State and federal), the system which will give the federal government the necessary control, therefore check upon unsound State laws, the system which through charter rights will give the States a check upon the federal government and the system which imposes upon the banks the duty of furnishing and redeeming all the paper money needed by the people. Cannot our Southern representatives unite in a demand for such a system and let the agitation of the silver question rest until they have forever killed the national banking system, which, through its failure to give such a circulating medium as the people needed, has retarded and hindered the recuperation of the South from the effects of war and made our people slaves to money which seeks certain centers and which cannot on account of its character perform the true function of a banknote?"

Desirable Investment.

The Mercantile Trust & Deposit Co. of Baltimore is extending its range of investments to different parts of the country and has been fortunate in placing some of the most desirable securities in the United States in the hands of its patrons. It announces that it is in a position to offer bonds of the Syracuse Rapid Transit Railway Co. to investors. The amount is \$1,250,000, the bonds bearing interest at the rate of 5 per cent. The company issuing these bonds controls the entire railway system of Syracuse, N. Y., a city of 130,000 people, and they are a first mortgage upon the property, which represents sixty miles of line. The

total amount of the mortgage is \$3,250,000, of which \$750,000 is held by the Guaranty Trust Co. of New York, trustee of the mortgage, to retire a former issue. Statements of earnings for 1897 show that net earnings for the last six months of the year amounted to \$119,194, an increase of about 33 per cent. over the preceding period, and nearly \$40,000 more than the interest on the entire issue. A number of the most noted experts in the country pronounce the property one of the most desirable on account of its character and earnings. Besides the Mercantile Trust & Deposit Co., J. H. Fisher & Son, 16 South street, Baltimore, and Townsend, Whelen & Co., 300 Walnut street, Philadelphia, are also in a position to negotiate the sale of these bonds.

Southern Railroad Disbursements.

The following disbursements are announced to be paid in February by Southern railroad corporations: Central of Georgia 5s, \$175,000; Chesapeake & Ohio Branch 5s, \$92,500; Chesapeake & Western 5s, \$16,500; Farmville & Powhattan 6s, \$15,000; Galveston, Harrisburg & San Antonio 6s, \$142,680; Gulf, Beaumont & Kansas City 6s, \$18,900; Illinois Central 5s, \$24,200; 4s, \$108,500; 6s, \$99,000; Kansas City, Fort Scott & Gulf 5s, \$97,500; 6s, \$57,300; Louisville & Nashville 6s, \$119,570; Louisville, St. Louis & Texas 6s, \$84,000; Missouri, Kansas & Texas 4s, \$400,000; 5s, \$50,000; Missouri Pacific 4s, \$140,000; 5s, \$191,250; 7s, \$140,000; Nashville, Florence & Sheffield 5s, \$52,400; Norfolk & Western 6s, \$150,000; St. Louis & San Francisco 6s, \$61,770; South & North Alabama 5s, \$100,550; Southern Railway Branch 5s, \$17,500; 4s, \$20,500; Texas & New Orleans 7s, \$56,700; Tennessee Coal & Iron 6s, \$78,675; Seaboard & Roanoke 6s, \$20,700.

Sale of Alabama Bonds at 113.

A dispatch from Montgomery, Ala., announces that the State of Minnesota has purchased for investment \$500,000 worth of bonds issued by the State of Alabama. It is understood that these bonds, which bear 5 per cent. interest, were sold at 113, the highest price ever paid for Alabama securities bearing this rate of interest.

New Corporations.

The Citizens' Bank of Bluefield, Va., has been chartered by W. F. Alexander, O. C. Jenkins and others, with \$100,000 capital.

The Georgia Benefit Association has been organized by Paul Barnett, Robert Alston and others to carry on an insurance business at Atlanta, Ga.

The Bank of Middlebourne, W. Va., has elected W. O. Hardman, president; John Riggle, vice-president, and J. H. Herne, cashier. The bank is to begin business immediately.

New Securities.

The Bank of Abbeville has increased its capital from \$15,000 to \$45,000.

The town of Newton, N. C., has sold its recent bond issue to Chicago parties. The city of Meridian, Miss., may issue \$20,000 in bonds for street paving. Address the mayor.

The town of Ellijay, Ga., will vote on a proposed issue of 6 per cent. bonds to the amount of \$5000. Address the town clerk.

Alexandria county, Virginia, may issue bonds to construct a courthouse. The county clerk may be addressed at Alexandria, Va.

The city of Memphis, Tenn., may decide to issue \$2,500,000 in bonds for im-

provements. The mayor will give further information.

The city council of McKinney, Texas, has decided to issue \$30,000 in bonds for water works. The mayor will give further information.

Coahoma county, Mississippi, is considering the issue of bonds for refunding purposes. The county clerk may be addressed at Friar's Point, Miss.

The city of Ocala, Fla., will issue \$24,000 worth of 6 per cent. bonds for refunding purposes. A. A. Campbell, mayor, will give further information.

Amherst county, Virginia, has been authorized to issue bonds for refunding and improvement purposes. The county treasurer may be addressed at Amherst C. H.

The proposed issue of \$100,000 in bonds will be made by the city of Danville, Va., on March 1. It will be for refunding purposes. The mayor will give further information.

The city council of Newport News, Va., will probably decide to issue \$140,000 worth of 4½ per cent. bonds for improvements. Hon. J. B. Hope, mayor, may be addressed.

An election will be held on March 2 in Clayton county, Georgia, to decide on issuing \$16,000 in 5 per cent. courthouse bonds. The county clerk may be addressed at Jonesborough, Ga.

The town of Independence, Mo., may issue \$30,000 in bonds for improvements. John Sea may be addressed for further information. An election will be held to decide the question on February 23.

The City Passenger Railway Co. of Baltimore may issue \$1,000,000 in bonds or certificates of indebtedness to refund a portion of its indebtedness and to pay for the Central Railway lines it has purchased.

The city of Baltimore, Md., will probably vote on the question of issuing \$1,875,000 in 3½ per cent. stock to refund an issue of railroad bonds, also of city stock. J. Frank Supplee, city register, may be addressed.

The city of St. Louis, Mo., will be obliged to issue bonds during the present year to refund an issue outstanding amounting to \$333,000 in 6 per cent. bonds. The city treasurer will give further information.

Marshall county, West Virginia, will vote March 5 on an issue of \$100,000 in bonds for railroad purposes, also for an issue of \$100,000 in bonds for road improvements. Each issue is to be 5 per cent. E. M. L. Lewis, clerk, may be addressed at Moundsville, W. Va.

A bond issue of the Charleston & Western Carolina Railroad is to be secured by a syndicate organized by the Maryland Trust Co. of Baltimore. The issue amounts to \$2,720,000 and bears interest at 5 per cent. As already stated in the Manufacturers' Record, the Charleston & Western Carolina is now a portion of the Atlantic Coast Line. It is regarded as a very valuable property.

Dividends and Interest.

The Tuskaloosa Cotton Mill Co., of Tuskaloosa, Ala., has declared a dividend of 2 per cent.

The People's Loan Co., of Galveston, Texas, has declared a semi-annual dividend of 4 per cent.

The Baltimore Fire Insurance Co. has declared a dividend of seventy-five cents a share, payable January 18.

The Harmony Grove Cotton Mills, of Harmony Grove, Ga., has declared a semi-annual dividend of 5 per cent.

Interest due February 1 on the first mortgage bonds of the Chattanooga Electric Street Railway Co. will be paid at the office of the Maryland Trust Co., Baltimore.

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Barnesville Manufacturing Co., of Barnesville, Ga., has declared a dividend of 8 per cent. on its preferred and 6 per cent. on its common stock, besides adding \$8000 to its surplus.

Financial Notes.

The Merchants and Planters' Bank of Griffin, Ga., has elected Seaton Grantland, president, and Robert Strickland, vice-president.

The People's Bank of Livingston, Tenn., has secured a controlling interest in the Bank of Livingston and the latter has been consolidated with it.

According to a statement recently issued North Carolina has sixty-seven State and other banks, not including national banks. Their total capital is \$2,564,044 and surplus fund \$360,902.

J. WM. MIDDENDORF.

Members Baltimore Stock Exchange.

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BOUGHT AT INVESTMENT PRICES.

WRITE ME FOR QUOTATIONS.

If you have a large line of Life Insurance to place, I can make it worth your while to communicate with me.

E. A. COWLEY, No. 712 MERCHANTS NATIONAL BANK, BALTIMORE, MD.

The Birmingham News estimates the shipments of pig iron from Alabama and Tennessee furnaces during 1897 at 1,119,892 tons, and of export iron 218,633 tons.

The Joplin (Mo.) Club has resolved to have an exhibition of its local resources at the Omaha Exposition.

Alabama produced 5,833,841 tons of coal in 1897, an increase of 88,224 tons over 1896.

TO CONTRACTORS.

If you have any municipal bonds or warrants, taken in payment for building waterworks, court or school houses, jails, etc., write us. Conditions being favorable, we can use them.

F. M. STAFFORD & CO.

Dealers in Southern Municipal Securities,
Chattanooga, Tenn.

Mercantile Trust & Deposit Co.

OF BALTIMORE.

Paid-up Capital, \$1,000,000.
Surplus, \$1,000,000.

DEPOSITS RECEIVED
On which interest is allowed, governed by current rates obtainable.

TRUSTEES AND ADMINISTRATORS.
This company is a Legal Depository for funds in the hands of Trustees or Administrators, and allows interest on same pending distribution.

Authorized to act as Executor, Administrator, Guardian, Receiver or Trustee.
ACTS as Trustee of Mortgages of Corporations and accepts Transfer Agency and Registry of Stocks.

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Vaults supplied for Storage of Silver Chests, etc.

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Corner South and German Sts.

BALTIMORE.

CAPITAL, - \$1,000,000.

A LEGAL DEPOSITORY FOR COURT AND TRUST FUNDS.

Acts as Financial Agent for States, Cities, Towns, Railroads and other Corporations. Transacts a general trust business. Lends money on approved security. Allows interest on special deposits. Acts as Trustee under Mortgages, Assignments and Deeds of Trust; as Agent for the Transfer or Registration of Stocks and Bonds, and for the payment of coupons, interest and dividends.

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LYDD L. JACKSON, FIRST VICE-PRES.

HENRY J. BOWDOIN, SECOND VICE-PRES.

J. BERNARD SCOTT, Secretary and Treasurer.

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Dealers In RICHMOND, VA.

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Correspondence Invited.

THE FAYETTEVILLE WATER CO., of Fayetteville, Ark., will receive bids on Thirty Thousand First Mortgage Refunding Bonds to run eighteen years, to bear 5 per cent. interest, paid semi annually, guaranteed by the city. Bids received until March 20, 1898. Address FAYETTEVILLE WATER CO., FAYETTEVILLE, ARK.

\$1,250,000.

SYRACUSE RAPID-TRANSIT RAILWAY CO.

FIRST MORTGAGE 5 PER CENT. 50 YEAR GOLD BONDS.

Dated, March 1, 1896. Due, March 1, 1946.
Interest, March 1 and September 1, at

THE GUARANTY TRUST CO., NEW YORK CITY, TRUSTEE OF THE MORTGAGE.

Coupon Bonds of \$1,000 each. Principal can be Registered. Principal and Interest payable in Gold Coin of Present Standard Weight and Fineness.

Total mortgage \$3,250,000
Held by Trustee to retire People's Railway bonds, 750,000

Outstanding.....\$2,500,000
Preferred 6 per cent. non-cumulative stock.....1,250,000
Common stock.....2,750,000

Syracuse is the fourth city in population in New York State. This Company controls all the street railway lines of Syracuse, N. Y.—about 60 miles. Population served estimated at 130,000. Chartered for 1,000 years. Franchises practically perpetual.

Expert Reports of.... H. H. VREELAND, President Metropolitan Street Railway Co., of N. Y.
EDGAR S. FASSETT, Superintendent Albany (N. Y.) Railway Co.

Legal Opinions of.... DAVIES, STONE & AUERBACK, of N. Y.
GUGGENHEIMER, UNTERMYER & MARSHALL, of N. Y.
STONE, GANNON & PETIT, of Syracuse.

EARNINGS.

Net earnings year ending June 30, 1897 .. \$178,074 20
Net earnings 6 months ending December 31, 1897..... 119,193-68 33 per cent.
Interest on bonds, six months..... 81,350 00
Surplus for 6 months over operating expenses and interest..... \$37,943-68

The balance of the Bonds not offered have already been placed with investors. Application will be made to list these Bonds on the New York and Baltimore Stock Exchanges.

MERCANTILE TRUST AND DEPOSIT COMPANY OF BALTIMORE,
German and Calvert streets, Baltimore, Md.

J. H. FISHER & SON,
16 South street, Baltimore, Md.

TOWNSEND WHELEN & CO.,
309 Walnut street, Philadelphia, Pa.

REPORTS AND LEGAL OPINIONS ON APPLICATION.

Price, 101 AND INTEREST.

For "Classified Index" see pages 3, 5 and 7.

Ads. marked thus * appear every other week.
Ads. marked thus † appear in first issue of each month.
Ads. marked thus ‡ not in this issue.

SURETY BONDS.**Fidelity & Deposit Company of Maryland**

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Total Cash Resources Over \$2,000,000.

Becomes SURETY ON BONDS for Contractors, and for all occupying Positions of TRUST. ACCEPTED AS SOLE SURETY by the United States Government and all States.

HERMAN E. BOSLER,
Secretary and Treasurer.**EDWIN WARFIELD,**
President.**PROPOSALS.**

TREASURY DEPARTMENT, Office Supervising Architect, Washington, D. C., February 25th, 1898.—Sealed proposals will be received at this office until 2 o'clock P. M. on the 22nd day of March, 1898, and opened immediately thereafter, for all the labor and materials required for the decorative painting of the U. S. Courthouse, Postoffice, etc., building at Detroit, Mich., in accordance with the drawings and specification, copies of which may be had at this office or at the office of the Superintendent at Detroit, Mich. The right is reserved to reject any or all bids and to waive any defect or informality in any bid, should it be deemed in the interest of the Government to do so. Proposals must be enclosed in envelopes, sealed and marked "Proposal for Decorative Painting of the U. S. Courthouse, Postoffice, etc., at Detroit, Mich.," and addressed to the Supervising Architect.

TREASURY DEPARTMENT, Office Supervising Architect, Washington, D. C., January 25th, 1898.—Sealed proposals will be received at this office until 2 o'clock P. M. on the 19th day of February, 1898, and opened immediately thereafter, for all the labor and materials required for the hydraulic passenger elevator at the U. S. Postoffice, Pueblo, Colo., in accordance with the drawings and specification, copies of which may be had at this office or the office of the Superintendent at Pueblo, Colo. The right is reserved to reject any or all bids and to waive any defect or informality in any bid, should it be deemed in the interest of the Government to do so. Proposals must be enclosed in envelopes, sealed and marked "Proposal for Hydraulic Passenger Elevator at the U. S. Postoffice, at Pueblo, Colo.," and addressed to the Supervising Architect.

TREASURY DEPARTMENT, Office Supervising Architect, Washington, D. C., February 2d, 1898.—Sealed proposals will be received at this office until 2 o'clock P. M. on the 24th day of February, 1898, and opened immediately thereafter, for furnishing all the labor and materials and erecting complete two hydraulic passenger elevators, one hydraulic mail lift and one hydraulic ash lift, including pumps, tanks, piping, cars, platforms, etc., for the U. S. Court House, Custom House and Postoffice Building at Omaha, Nebraska, in accordance with the drawings and specification, copies of which may be had at this office or the office of the Superintendent at Omaha, Nebraska. The right is reserved to reject any or all bids, and to waive any defect or informality in any bid, should it be deemed in the interest of the Government to do so. Proposals must be enclosed in envelopes, sealed and marked "Proposal for two Hydraulic Passenger Elevators, one Hydraulic Mail Lift and one Hydraulic Ash Lift, for the U. S. Court House, Custom House and Postoffice building at Omaha, Nebraska," and addressed to the Supervising Architect.

PARKERSBURG, West Virginia, February 1st, 1898.—Sealed proposals will be received at the office of C. H. Shattuck, President of the Parkersburg Gas, Electric Light & Street Railway Company, up to and including February 15th, 1898, for the construction of about seven and one-half miles of electric railway in the city of Parkersburg, West Virginia.

First: Bids will be received on the work complete, including the furnishing of all material for the same.

Second: For the track construction alone, including the furnishing of all material for the same.

Third: On the pole and overhead line construction alone, including the furnishing of all material for the same.

Plans and specifications can be seen at the office of Brown & Hazlett, Parkersburg, West Virginia, at any time between February 5th and 15th, inclusive. The company reserves the right to reject any or all bids. Envelopes must be marked "Sealed Proposals." Parkersburg Gas, Electric Light & Street Railway Company, by C. H. Shattuck, President.

P. O. Box 127.

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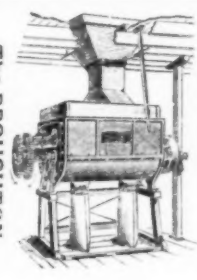
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and FIRE BRICK.

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ARTISTIC WORK.
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If you have good farm, garden or orchard property, well located and reasonably priced, you can find buyers for it through the SOUTHERN STATES FARM MAGAZINE. Every day hundreds of Northern farmers are buying farms in different parts of the South for farming, trucking, fruit growing, dairying, stock breeding, poultry raising, or other agricultural pursuits. Within the last few years many hundred thousand Northern farmers have moved to the South.

The SOUTHERN STATES FARM MAGAZINE discusses every question likely to interest Northern farmers looking to the South. It deals with all matters pertaining to soil, climate and agricultural conditions and capabilities in the South. It publishes articles from the best informed and most trustworthy sources on farming, stock raising, dairying, truck farming, fruit growing and every agricultural pursuit. It publishes descriptions of different parts of the South, elaborately illustrated with the finest half-tone engravings of farm scenes, typical farm homes, growing crops, picturesque scenery, views in the cities and towns, photographs of prominent Southern men, etc. It records every month the progress of the immigration movement in every part of the South.

In a word, it seeks to make known and emphasize in the clearest and most interesting and intelligible way every phase of the South's agricultural and home advantages and resources.

Advertisements of farm property in the SOUTHERN STATES FARM MAGAZINE are placed directly before people who are seeking information that will enable them to decide where and what to buy in the South.

Let us quote you prices. The rates are very low.

SOUTHERN STATES FARM MAGAZINE,
BALTIMORE, MD.

WILLIAM H. EDMONDS, Editor and Manager.

**ASPHALT PAVEMENTS**

Enhance the Value of Property One-Third.

DURABLE HEALTHFUL NOISELESS

20,000,000 square yards laid in eighteen years.

For plans and estimates apply to

THE BARBER ASPHALT PAVING COMPANY,
General Office, 11 Broadway, New York.

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LOOK THE BEST.
LAST THE LONGEST.
Write for Free Book
and lowest prices.

NAILS and
CEMENT.

JOHN GALT & SONS,
253 Broadway, - NEW YORK.
915 N. Y. Life Building, CHICAGO.

TOOLS and
SLATE DRESSERS.**THE COLUMBIA WATER POWER CO., COLUMBIA, S. C.**

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UNLIMITED ELECTRIC POWER

in large or small units for manufacturing purposes. Columbia is in the centre of the cotton producing country. Low freight rates to all points. An ideal manufacturing location.

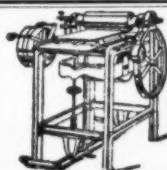
GEORGE WALLACE, General Manager, Boston Office, 53 State St., Room 608.
WM. C. HAWKINS, Managing Engineer, Columbia, S. C.

A. WALKER, President.

M. B. FRYMAN, Secretary.

S. H. SINCLAIR CO.

Manufacturers of

LAUNDRY MACHINERY.

"THE SINCLAIR"
IRONER
Is the First and the Best.

8-10 S. Canal St.
CHICAGO.

Write for prices and catalogue

Do You Want to BUY

"The Columbia" Modern Laundry Machinery

Is the Cheapest and Best.

Latest "Up To Date"

Prices "Right"

WILSON LAUNDRY MACHINERY CO.

Send for Catalog R.

COLUMBIA, PA.

**Alford's**

120 E. Baltimore St.

Baltimore, Md.

Athletic, Gymnasium
and Sporting Goods,
Guns and Ammunition.

Waterman's Ideal Fountain Pen

STANDARD OF THE WORLD.



The Waterman Ideal Fountain Pen is the best known and known to be the best fountain pen the world over. It is always ready and writes continuously without shaking; it has the best Gold pens that can be made; and it is guaranteed to be satisfactory or your money will be refunded.

L. E. Waterman Co., 155-157 Broadway, New York.

Largest Fountain Pen Manufacturers in the World.

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WORKS AT NEWPORT NEWS, VA.

(ON HAMPTON ROADS)

Equipped with a Simpson Basin Dry Dock, capable of docking a vessel 600 feet long, drawing twenty-five feet of water, at any stage of the tide.

Repairs made promptly and at reasonable rates.

SHIP AND ENGINE BUILDERS

For estimates and further particulars address

C. B. ORCUTT, President,**No. 1 BROADWAY.****NEW YORK.****LOBDELL CAR WHEEL CO.**

Wilmington, Del.

MANUFACTURERS OF ALL KINDS OF

CHILLED WHEELS.

See large advt. in first issue of month.

See our large advertisement in last issue.

The Austin Separator Co.

72 Woodbridge St., West,

DETROIT, MICH.**ECO MAGNETO WATCHMAN'S****ELECTRIC CLOCK.**

Indorsed by all Insurance Companies. Write for Catalogue.

ECO MAGNETO CLOCK CO.

621 Atlantic Ave., BOSTON, MASS.



It costs only
15 Cents a
year to own one.

THE BEST ON EARTH.
Patented January 5, 1897;
others applied for.

THE HARTZELL
Self Draining Hose Reel.

It will last twenty years and

it sells at

\$2.50

AND

\$3.00

EACH.



It is rigidly, scientifically and mechanically constructed. It drains out all the water. It keeps the hose in good order. The hose is not kinked, twisted, crushed or drawn to a tension as it is easily unreeled. It sets at sight. For catalogue and lists address

The Hartzell Novelty Works, Alliance, O., U. S. A.

SPECIAL Advertisements OF GENERAL Interest.

OPPORTUNITIES FOR INVESTORS.

A No. 1 Location for Cotton Mills & other Manufacturing Enterprises.

ADVANTAGES:

A Natural Site.—Conveniently situated in Chilton County, Ala., in the midst of a large cotton producing territory, and possessing all the natural advantages as to climate, living water supply, railroad transportation and all the necessary requirements for a successful factory.

An Abundance of Raw Material.—The product of Bibb, Chilton, Shelby and Autauga counties, and a part of Perry, Montgomery and Dallas counties, could be concentrated at a maximum railroad haulage of not over forty miles. A great quantity of high-grade cotton is annually produced in this territory.

Ample Transportation Facilities.—The Southern Railway runs through the property for a distance of one mile, and the Montgomery, Tuscaloosa & St. Louis runs through for three fourths of a mile.

Accessible and Adequate Water Supply.—A large, never-failing stream is within thirty yards of the railroad at an advantageous point with other good water sources close.

Coal of good quality and sufficient quantity is mined within thirty miles of the place on both lines of the railroads above named.

Taxes are cheap (State and county) and no city tax or license is laid.

Building Material.—Sufficient quantities of brick and lumber for factories, houses, &c., can be made on the property.

The Finished Product can be shipped by competing lines to any part of the United States or to the Gulf coast for export.

Extent of Territory is about 500 acres, adapted for factory and building sites.

The advertiser shall be glad to answer all inquiries and give detailed information.

JONGE L. GARDNER, Randolph, Ala.

ATTENTION, MANUFACTURERS!

A magnificent plant, ready to be converted easily into a

YARN, HOSIERY MILL or PLANT.

Situated in best portion of Piedmont section of Western North Carolina. Main building 100 by 50 feet, solid brick, slate mansard roof, five full stories, steam elevator, good power, plenty of cheap labor. Will put plant into a stock company, or against money or machinery, or both, to operate it in any good line.

Situated in a good town, with splendid climate, water, electric lights and railroad facilities. Full particulars by addressing

PLANT, care Manufacturers' Record.

SPECIAL COMMISSIONERS' SALE

OF THE

Norfolk and Ocean View Railroad

3 1/2 Miles Norfolk to Ocean View;

Standard Gauge; Electric Power;

ITS PROPERTY AND FRANCHISES, including the Ocean View Hotel Property.

Pursuant to a decree of the Circuit Court of the United States for the Eastern District of Virginia, we shall sell at PUBLIC AUCTION in front of the Custom-House, Norfolk, Virginia, on Wednesday, the 23d day of March, 1898, at 12 o'clock M., the above referred to property.

For further information apply to W. W. OLD, CALDWELL HARDY, Special Commissioners, NORFOLK, VA.

GREAT BARGAIN!

FOR SALE.

The Madison Ice and Cold Storage Plant

At JACKSON, TENN.

Located on the N. C. & St. L. Railroad, between the M. & O. & I. C. Railroad, containing 1 e Plant, 16 tons capacity, and 6 cold storage rooms; Bottling Works—200 dozen soda and mineral water and 50 dozen beer; Canning Factory—10,000 cans per day. Also Machine Shop, with all teams, etc., complete.

Address C. G., care Manufacturers' Record, or at the Works.

WATER POWER

FOR SALE.

Waterfall River falls 51 feet through Wateree boat canal, producing many thousand horse power. Massive granite locks in good repair. Four miles from railroad. Near Camden, S. C. Correspondence and inspection invited.

S. LOGAN LANG, CAMDEN, S. C.

FOR SALE.

Up-to-date Wheel Factory

in one of the best Southern cities. 3 railroads. Capacity 150 sets of wheels per day. 10,000 finished spokes per day. Best of material right at door at cord-wood prices. Address

P. O. BOX L, Meridian, Miss.

Knitting Mills for the South.

MR. W. G. MAXWELL, of the Wool Exchange Building, New York, one of the founders of Roanoke Rapids, N. C., and organizer of the first knitting mill company there, is prepared to introduce this industry at any favorable point in the South with the utmost speed and perfection.

The knitting mill at Roanoke Rapids has been a wonderful success, and is now running night and day.

The South is beginning to feel the competition of her own cotton mills, but the knitting industry has there a comparatively free field, and this is the time to enter it with certainty of large profits.

Mr. Maxwell will be pleased to correspond with individuals, corporations or municipal bodies upon the subject.

FOR SALE.

MONEY in TIMBER and LUMBER.

A Double Saw Mill, 100,000 Feet Capacity Per Day, may be used for the manufacture of Yellow Pine and Cypress timber and lumber. Situated at the mouth of the Altamaha river, Georgia, on deep water, favorable for coast trade. Will be sold at a bargain on easy terms. Apply to

J. C. WOODHULL, 16 Beaver Street, New York City.

Pays Regularly 15 Per Cent.

Twenty ton daily. Ice Plant for sale; first-class order; good as new; regular sale for full output; two machines, can be run separately; also Bottling Works can be run separately from the plant; sale 100 boxes daily; in Bessemer, Ala., the seventh city in population and the sixth in taxable values in the State; center of the great mineral district; 650 feet elevation; owner in bad health and must get out of business. Address

H. G. MEUMANN, Bessemer, Ala.

A Good Chance for a Cotton Factory.

30 acres with ample buildings, one 100-horse-power steam engine and boiler. The above property is all new and is known as the Shreveport Fair Grounds. Address

E. M. SMITH, Shreveport, La.

NOTICE.

We mine, manufacture, buy and sell all kinds of mineral paints, dry colors, minerals and clays. ALPHA PAINT AND MINERAL CO., 338 Bourse Building, Philadelphia, Pa.

VALUABLE WATER-POWER FOR SALE.

In the Piedmont section of North Carolina on the Southern Railway and the South Yadkin River. Full copy of engineers report sent on application.

FRANK C. HAIRSTON, Davie Co. Fork Church, N. C.

If you wish to keep posted on the progress of the South, read the Manufacturers' Record. Price \$4.00 a year.

FOR SALE.
One 13 ton Geared Locomotive and 13 Scott's Patent Tram Cars, all in A1 condition.
One 30 to 40 M Cap. Saw Mill.
16x24 Struthers and Wells' Engine.
Steam's Gang Edger.
Will sell any part of above cheap. f. o. b. Garland, Pa. Address
K. M. ANDREWS,
1221 12th St. Washington, D. C.

Incorporate Your Business.

West Virginia Laws Most Liberal.

No Personal Liability. Non-Assessable Stock.

Plan mailed on application.

J. A. THAYER & CO., Attorneys,
Charleston, W. Va.

FOR LEASE.

A COLD BLAST CHARCOAL IRON FURNACE.

for lease on royalty, which can be converted into a hot blast furnace. Situated immediately on railroad in Stewart County, Tennessee. Abundant supplies of charcoal timber and high grade iron ore, water, limestone, etc. For full particulars apply to

JOHN H. LORY,
Bear Spring, Stewart Co., Tenn.

WANTED.

To communicate with a party, capable of running any kind of wood-working machinery in connection with ginny and electric light plant, who has two thousand dollars or more to invest. Party to take charge of and operate the entire plant. A good opening for a competent man. For particulars address W. K. NETTLES, care The Magnolia Gin & Light Co., Magnolia, Miss.

BY SPECIAL MASTER.

SPECIAL MASTER'S SALE.

MRS. MARY G. T. STEMPEL,

Guardian,

VS.

THE NEW CONSUMERS' ICE COMPANY, LIMITED.

No. 12,825, in the United States Circuit Court for the Eastern District of Louisiana, New Orleans Division—In Equity.

IN PURSUANCE OF DECREES RENDERED Dec. 10, and signed Dec. 23, 1897, by the Hon. Don A. Pardee, judge of the United States Circuit Court for the Eastern District of Louisiana, New Orleans Division, in the above entitled and numbered cause, and of an order granted by said court and to me directed, bearing date Jan. 24, 1898, I will sell at public outcry to the last and highest bidder for cash on the premises, on Magazine street, between Julia and Girod streets, in the City of New Orleans, La., on MONDAY, THE 28TH DAY OF FEBRUARY, 1898, beginning at 11 o'clock a. m., the following described property, to-wit:

1. A CERTAIN PIECE OR PORTION OF GROUND, with the buildings and improvements thereon, including all the machinery, engine, fixtures, apparatus and the appurtenances for the manufacture of ice therein contained, and all rights, ways, privileges and appurtenances thereto belonging or in anywise appertaining, situated, lying and being in the First District of this city, in the square bounded by Magazine, Julia, Girod and Camp streets, and measuring two hundred and twenty-four (224) feet one inch front on Magazine street, the same width in the rear, by one hundred and seventy feet and five inches in depth, between parallel lines, according to a sketch or certificate under date of March 16, 1896, and annexed for reference to an act of mortgage from Consumers' Ice Company to W. J. Behan, before Andrew Hero, Jr., bearing date July 3, 1896.

2. A CERTAIN LOT OF GROUND, situated, lying and being in the First District of this city, in the square bounded by Camp, Magazine, Girod and Julia streets, being square No. 162, measuring more or less, thirty (30) feet front on Magazine street by a depth between parallel lines of one hundred and sixty (160) feet, all French measurement, together with all the buildings and improvements thereon, rights, ways and advantages thereunto belonging or in anywise appertaining; the buildings and improvements designated by the No. 141 Magazine street; said lot of ground herein conveyed being the upper half of that certain piece or lot of ground measuring in French measure sixty (60) feet front on said Magazine street by the aforesaid depth of one hundred and sixty (160) feet, between parallel lines, which larger lot of ground the congregation of the Roman Catholic Church of St. Patrick acquired from the Society of the Roman Catholic Church of the Archdiocese of New Orleans by an act passed before Octave de Armas, a notary public in this city, under date of 19th of August, 1871; the said property being the same acquired by the Consumers' Ice Company from David Close by act before Samuel Flower, notary, on the 27th day of September, 1892, registered in the conveyance book No. 143, folio No. 394.

For further particulars see decrees on file in the United States circuit clerk's office at New Orleans, La.

ALCEE LE BLANC, Special Master.

ROBERT WARE GRASTY, Attorney and Counsellor-at-Law, EQUITABLE BUILDING, ATLANTA, GA.

General law practice. Collections, loans, money invested, options secured and information furnished concerning Southern properties of all kinds.

AGENTS WANTED—To Sell the

"Battle Ax" Hay Press.

Latest invention, Automatic, Ball Bearing, Compound Leverage, Self Contained. No gear wheels or springs. Full circle, Simple in construction, efficient in service. Write, prices, discounts.

ALABAMA FOUNDRY & MACHINE WORKS,
NEW DECATUR, ALA.

RADFORD, Virginia.

Parties desiring to start new enterprises or change location, are invited to investigate Radford, Va. Good climate, water and drainage, elevation, 1800 feet. On Norfolk & Western Ry. at junction of Columbus, O., and Pocahontas Coal Fields divisions, as well as Southern connection via Knoxville, Tenn. In midst of fine agricultural country and 25 miles from ore fields. Population, 4000, churches, public and private schools, electric light and car line. Ice plant and other manufactures.

Responsible parties are offered inducements, including no city taxes for five years. Address

G. T. KEARSLEY,
Secretary Board of Trade,
RADFORD, VA.

FOR SALE.

7000 Acres of Yellow Pine Timber Lands, on the Georgia Coast.

Address W. A. WILLCOX, Darien, Ga.

For Sale to Close Out Business.

26,000 ACRES OF LAND,

From 4 to 16 miles from Summerville, S. C. a noted health resort, containing long and short leaf pine, oak, hickory ash, cypress, etc. Contains excellent farming and pasture land, and is convertible into a game preserve. Also second-hand machinery in good order.

A. W. TAYLOR LAND & LUMBER CO.
SUMMERVILLE, S. C.

TIMBER LAND.

21,000 Acres Virgin Forest in best timbered section of West Virginia. Experts measured off several one acre blocks on N. S., E. and W. portions of this tract, and then measured the timber thereon, using Scribner's Lumber and Log Book. Best acre measured 80,027 feet B. M.; thinnest acre, 19,964 feet; general average, 39,271 feet per acre, divided as follows: viz: Hemlock, 19,016 feet; Spruce, 11,358 feet; Cherry, 2,778 feet; Maple, 2,077 feet; Birch, 1,212 feet; Sugar, 948 feet; Ash, 794 feet; Beech, 818 feet, and Cucumber, 270 feet. Total amount of merchantable timber on this tract (approximated)

863,962,000 FEET.

The Title is Guaranteed to be Absolutely Perfect. Price and terms very reasonable. Sworn statement of the experts and detailed information sent upon application to THE SOUTHERN REAL ESTATE EXCHANGE, Clarksburg, W. Va.

FOR SALE. Mineral, Farming AND Timber LANDS.

Can Supply following:

Asbestos Lands.	Ash Timber Lands.
Beauxite Lands.	Black Cypress Poles.
Chrome Iron.	Cement Gravel.
Coal Lands.	Corundum Lands.
Copper Lands.	Cotton Lands.
Cypress Lands.	Cedar Lands.
Fire Clay.	Farming Lands.
Graphite Deposit.	Gold Mines.
Granite Quarry.	Hemlock Timber Lands.
Iron Lands.	Juniper Lands.
Kaolin Mines.	Land for Colonies.
Mica Lands.	Manganese Lands.
Monazite Lands.	Marble Lands.
Nickel Lands.	Orange Groves.
Oyster Lands.	Phosphates, S. C.
Phosphates, Tennessee.	Phosphates, Florida.
Pine Lands.	Pasture Lands.
Poplar Lands.	Palmetto Lands.
Pyrites Lands.	Rice Lands.
Sugar Lands.	Shooting Lands.
Sea Islands.	Tin Mine.
Talc Deposits.	Truck Farms.
Tie Lands.	Timber Lands.
Turpentine Lands.	Tan Bark Lands.
White Pine Lands.	White Oak Lands.
Walnut Timber.	

E. WILLIS,

CHARLESTON, S. C.

Foreclosure Sale

(TYREE & WILKINS, Auctioneers.)

IN THE CIRCUIT COURT OF THE UNITED STATES FOR THE WESTERN DISTRICT OF VIRGINIA,

In Equity.

THE PEOPLE'S TRUST COMPANY OF BROOKLYN, Plaintiff,

vs.

THE LYNCHBURG ELECTRIC COMPANY, Defendant

In pursuance of a decree for foreclosure and sale, dated December 11th, 1897, and entered in the above entitled cause, in the office of the Clerk of the United States Circuit Court at Lynchburg, Virginia, on the 11th day of December, 1897, we, Randolph Harrison and W. D. Coleman, the undersigned Commissioners in said decree named, will sell at public auction on the premises, in the City of Lynchburg, Virginia, to wit, at the power house of said defendant company on Jefferson Street in said city, on

Monday, February 28, 1898,

at 12 o'clock M. of that day, the property, rights and franchises mentioned in said decree and in the bill of complaint and in the deed of trust of the first day of December, 1892, from the defendant to the plaintiff, and described as follows in the decree aforesaid:

"(1) All the lands and tenements of the said party of the first part whereof located, including: (1) its real estate in the said City of Lynchburg, bounded by Park Avenue, Taylor and 7th Streets, with the stable, shops, plant and workshops thereon, it being the same property conveyed to it by the Lynchburg Street Railway Company by deed of the 28th of November, 1892, and (2) its (the grantor's) interest, whatever it may be, in that certain lot or parcel of land in the City of Lynchburg and bounded as follows: Beginning at the intersection of Jefferson and 10th Streets, thence with Jefferson Street toward 9th Street 84 feet, thence at right angles toward Lynch Street and parallel to 10th Street 132 feet, thence at right angles and parallel with Jefferson Street 84 feet to 10th Street, and with the latter 132 feet to the beginning, it being a part of lot No. 467 in the plan of the City of Lynchburg upon which its power house is situated, and the same lot conveyed to the grantor by the Piedmont Electric Illuminating Company by deed of the 28th day of November, 1892.

"(2) Its line of street railway located over, in and along the streets of the City of Lynchburg, in West Lynchburg and the County of Campbell, all its sidings, tracks and connections, its privileges, leases, easements, rights, immunities and contracts, all its equipments, engines, boilers, dynamos, cars, horses, mules, wagons, stable, harness, tools, implements, machinery, plant, electric appliances, lamps, poles, wires, its contract or franchise to light the City of Lynchburg, or to furnish lights to the inhabitants thereof, and all its property, tangible and intangible, whether in possession or to come into possession, acquired or to be acquired, all its revenues and resources of all sorts, present and future, the object being that future acquisition of whatever kind shall immediately come under this deed of trust as affectingly as if the same were now held and specified by name."

The franchise which the defendant company holds from the City of Lynchburg for the operation of its street railway as aforesaid, continues in force for thirty years from January 1, 1887, and the length of its railway in operation is between 5 and 6 miles. Said sale is subject to ratification by the Court, and will be made to the highest and best bidder, who will be required by the undersigned Commissioners, before making any adjudication to him, to pay in cash the sum of \$5000 on the day of sale, and if the sale is confirmed by the Court, the balance of the purchase money must be paid within twenty days from that day, but the purchaser shall have the right to anticipate the day of payment. If the holder, or holders, of any bonds of the said defendant company, secured under the said deed of trust of December 1, 1892, shall become the purchaser of said property, the said bonds and unpaid coupons thereon will be received in payment of the purchase money to an extent equivalent to so much of the purchase money as would be eventually payable as dividends in this cause upon such bonds and unpaid coupons upon a proper distribution and accounting for the said proceeds of sale. The Receiver's certificate, or any of them, may be used as cash in the payment of any part of the purchase money to the extent that certificates so used, and the interest due thereon, would be entitled to share in the distribution of the cash so required, except as to the \$5000 required to be paid on the day of sale as aforesaid. In case of the failure of any bidder to comply with the terms of sale on the day of sale, the undersigned Commissioners will reject the bid, and proceed at once, then and there, to make a resale.

Any of the parties to this suit, or any party in interest, may bid for and purchase the said property, rights and franchises at the sale aforesaid.

Upon confirmation of the report of sale by the Court, and the compliance with the terms of sale by the purchaser, and payment in full of the purchase money, the undersigned Commissioners will execute and deliver a deed of conveyance to the purchaser, and the said purchaser shall then and there be let into the possession of the said property, rights and franchises, and shall be entitled to have and receive all books, maps, plans, papers, records and documents of the said Lynchburg Electric Company, or of the Receiver, relating and appertaining to the said property, rights and franchises. The Receiver in this cause is directed to remain in possession of the said property, rights and franchises, and to continue to operate the said street railway and electric plant after the sale, and until a conveyance thereof, and if the sale shall be confirmed, the purchaser, on delivery of possession by the Receiver, shall be entitled to receive, and shall take, the said property subject to any gains or losses that may have accrued or been incurred subsequent to the day of sale.

Any further information desired will be furnished by the undersigned Commissioners, or by TYREE & WILKINS, the Auctioneers, No. 211 9th Street, Lynchburg, Va.

RANDOLPH HARRISON,
W. D. COLEMAN,
Commissioners.

WANTED. Machinery to Manufacture

We have a thoroughly equipped Machine shop, Carpenter Shop and Foundry, and can do all classes of Machine Work very reasonable. Try us.

SOUTHERN FOUNDRY & MACHINE WORKS,
FREDERICKSBURG, VA.

MUST BE SOLD.

FOUNDRY and MACHINE SHOPS.

The largest and best equipped jobbing foundry in Alabama. Machinery in first-class condition. Write for particulars. Address F. & M., care Manufacturers' Record.

Master Commissioners' Sale.

The Mercantile Trust and Deposit Company of Baltimore

vs.

The Brunswick Light and Water Company.

UNDER and by virtue of a decree in the Circuit Court of the United States for the Eastern Division of the Southern District of Georgia in the above-stated cause rendered on May 12th, 1897, and supplemental decree in said cause rendered by said court on January 10th, 1898, we will sell to the highest bidder at public outcry before the court house door in Brunswick, Georgia, on Saturday, February 26, 1898, between the hours of ten o'clock A. M. and four o'clock P. M., all of the following described property, assets and franchises of the Brunswick Light and Water Company as an entirety, to wit: All of the real estate, buildings, implements, machinery, outfit, equipment, water works, gas works, electrical works, mains, pipes, hydrants, meters, retorts, furnaces, pumps, belonging to the water, gas and electric plants of the Brunswick Light and Water Company, situate in the City of Brunswick, Glynn County, Georgia, together with all other property, privileges and franchises of said Brunswick Light and Water Company, with the rents, earnings, revenues and profits, and especially the rentals for gas, water and electric lights due and payable by the Mayor and Council of the City of Brunswick, together with all choses in action belonging to said Brunswick Light and Water Company; and for a more particular description of the said properties herein advertised to be sold reference is made for description in detail to the mortgage from the Brunswick Light and Water Company to the Mercantile Trust and Deposit Company of Baltimore, dated the first day of April, 1890, recorded in Book Vol. 3 of mortgages, at folio 337, of the general records of Glynn County, Georgia, a copy of which is filed as an exhibit in the above-stated cause.

The terms of sale to be as follows: The successful bidder, at the time the property is knocked down to him, or within one hour thereafter, to pay to the Master Commissioners the sum of Five Thousand Dollars (\$5,000.00), in cash, which sum shall be forthwith deposited by the said Master Commissioners in the Registry of the Court and be credited on the purchase in case the sale is approved by the Court, but shall become forfeited and may be applied by the Court to the discharge of the cost and expenses of this suit and other claims and indebtedness, including the mortgage debt, as aforesaid in their proper order, and the property may be resold by direction of the Court if on the approval of the sale the purchaser shall fail to comply with the terms of his purchase, or with any other provision of the decrees with respect to the sale by him to be complied with. And in case the deposit required to be made by him on the day of the sale is not made in the time limited, the Master Commissioners may at the expiration of said time, and on the same day re-sell the property as though no preceding sale had taken place. An additional sum of Five Thousand Dollars (\$5,000.00) shall be paid in cash by the purchaser upon confirmation of the sale, and such further sum shall be paid in cash as the Court may find necessary to meet the charges on the fund under the terms of the decrees of sale, and so order to be paid in, and the balance of said purchase price may be paid either in cash or by presenting and surrendering to be stamped, as provided in said decree, the mortgage bonds and overdue, and unpaid coupons pertaining thereto, the purchaser to be credited therefor on account of the purchase price such amount only as is equivalent to the distributive amount that the holders of such bonds and overdue coupons would be entitled to receive thereon in case the entire amount of the bid was paid in cash. That the purchaser at the sale, by virtue of his purchase, shall assume all executory contracts, agreements and obligations made and entered into by the Receiver in the operation and management of the property in his charge and which have been heretofore authorized to be made and entered into by said Receiver and shall pay the taxes for the year 1897.

The Court reserves the right to re-sell the premises and property sold, or any part thereof, upon failure of the purchaser or purchasers, his, its or their successors or assigns, to comply within ten days with any order of this Court requiring such purchaser to pay into Court any balance of the purchase price or perform the requirements of said decree.

The application of the fund arising from the sale shall be as provided in said decree of May 12th, 1897.

All claims against the Receivership or claiming preference over the mortgage debt foreclosed by said decree shall be presented by intervention in said cause within thirty days after the delivery of the property to the purchasers or be forever barred from participation in the proceeds of sale.

For the further particulars of said properties so to be sold and of the terms of sale reference is hereby expressly made to said decree of May 12th, 1897.

ALEXANDER PROUDFIT.

W. E. BURBAGE,

Master Commissioners,

January 11th, 1898.

Bargains in Machinery

FOR IMMEDIATE DELIVERY

DIAMOND DRILL FOR SALE.
M. C. Bullock Little Champion in first-class order.
PRICE, \$900.
Address DRILL, care Manufacturers' Record.

FOR SALE.

One 8x36 J. H. McGowan Co. Deep Well Steam Head complete, with 150 feet 2 1/2 in. Pump Rods, Brass Cylinder, Air Chamber, Wrenches, etc.

This outfit has only been in use since last May and will be sold cheap. For further particulars address BOX 77, Anna (Union County), Ill.

FOR SALE.

1 D. E. W. Motor, 7 1/2 Horse-Power, 125 Volts.
1 Motor, 5 Horse-Power, 250 Volts.
1 Dynamo, 150 Lights, 10 Volts, Edison.

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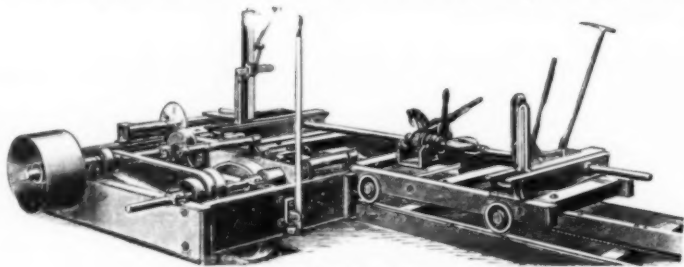
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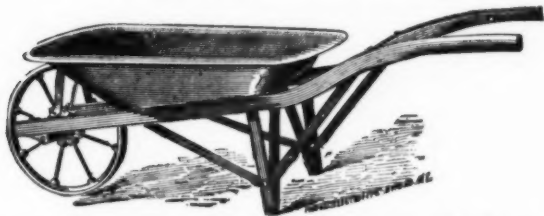
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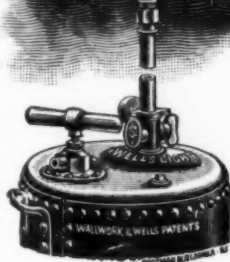
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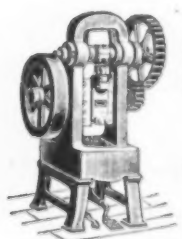
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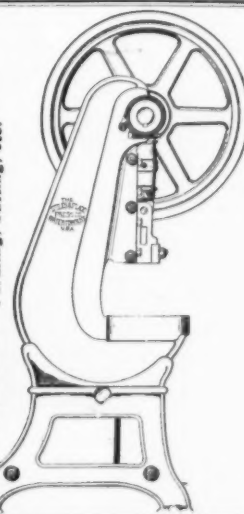
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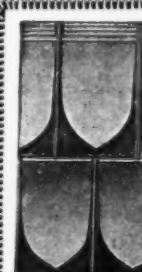
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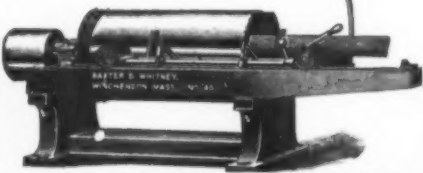
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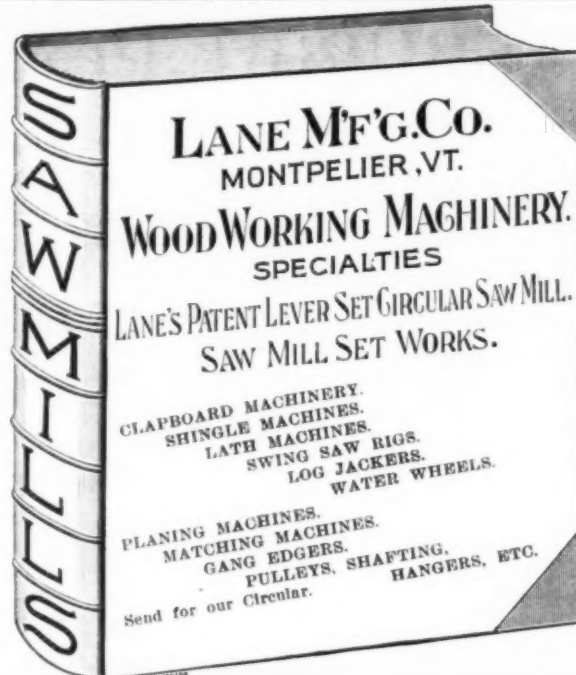
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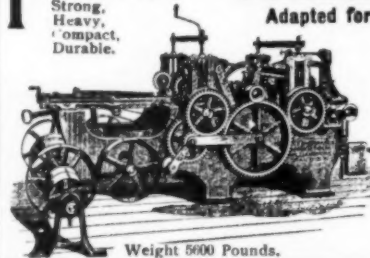
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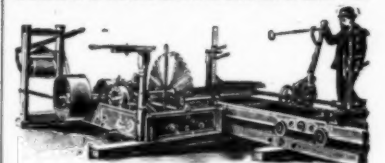
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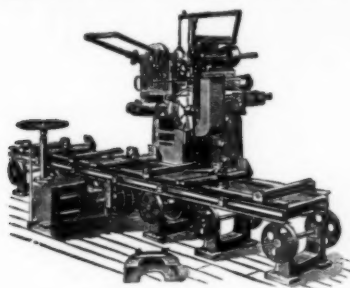


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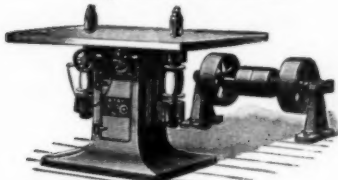
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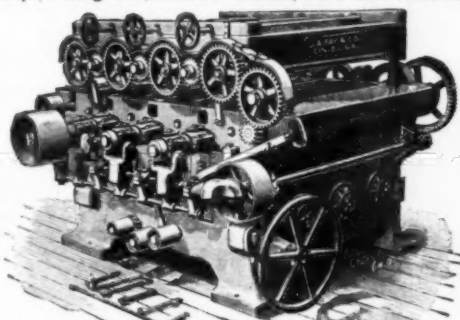
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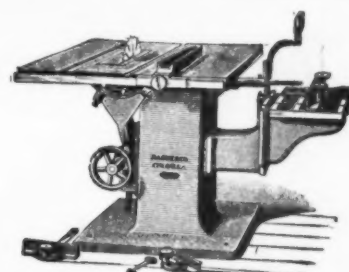
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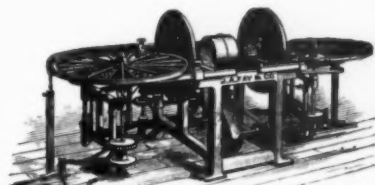
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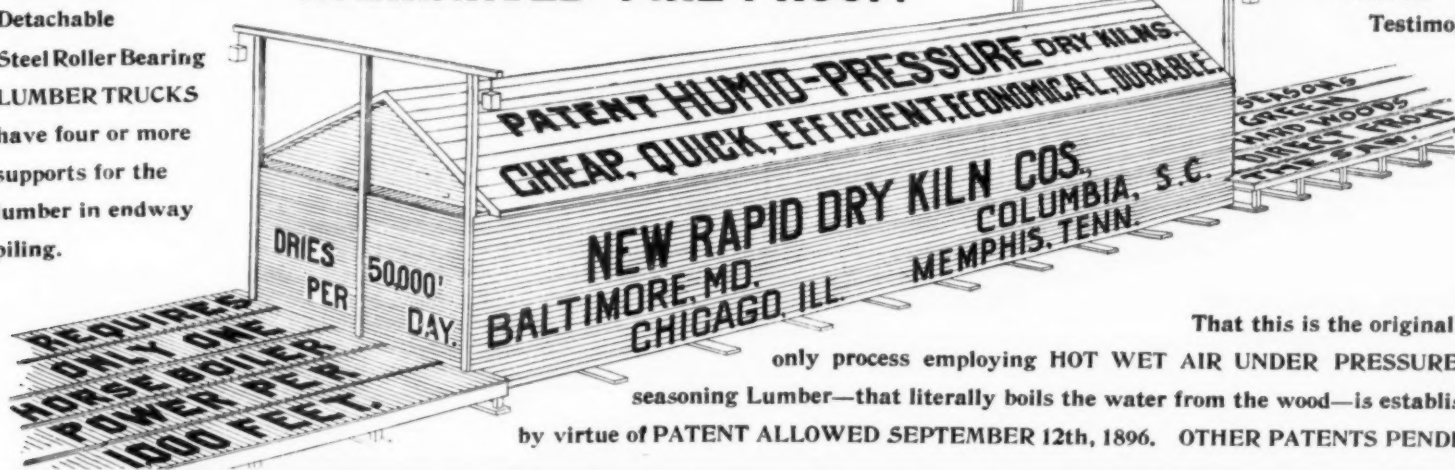
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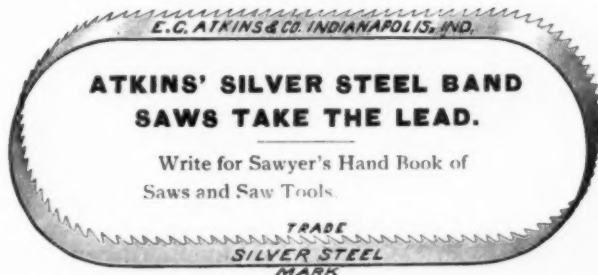
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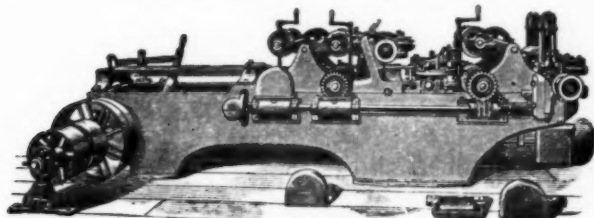
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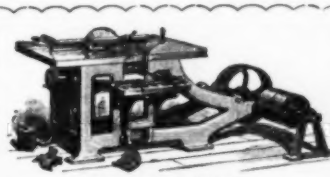
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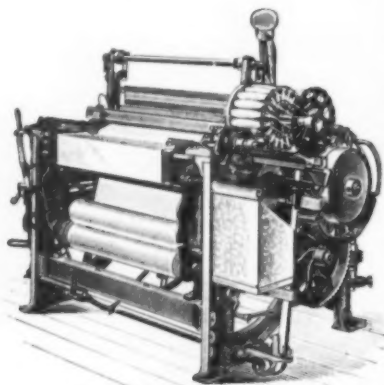
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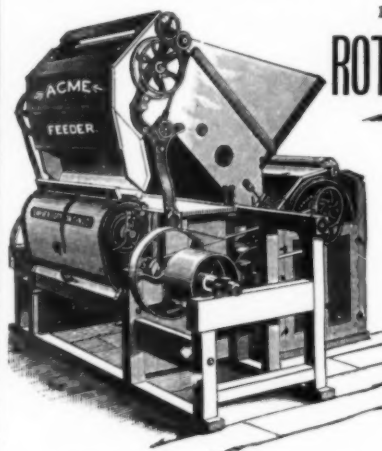
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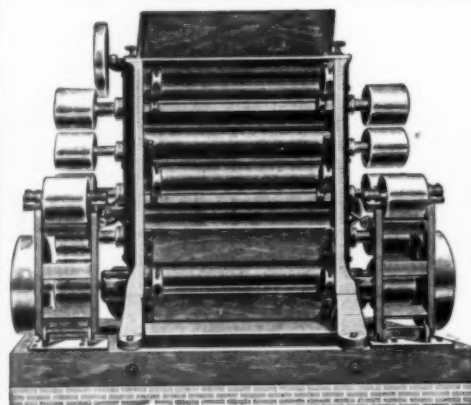
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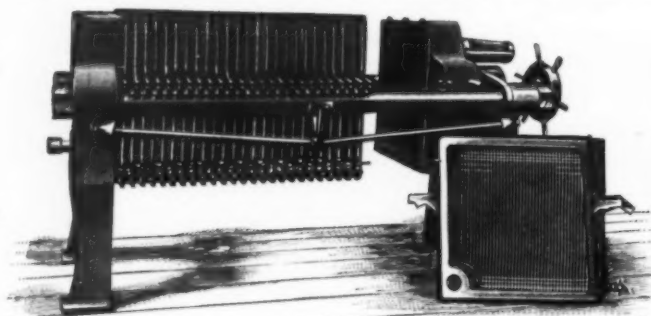
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Swing Foot Lever Soap Presses, Nos. 1 and 2. Combination Foot and Steam Power Soap Presses. Improved Soap Remelting Catchers, either with or without Eight Horse-power Engine attached. Seamless Steam Jacket Kettles. Steamed Jacketed Toilet Soap Kettle, with Agitator (three different styles). Steam Jacketed Rendering and Refining Kettles. Steam Jacketed Kettles for Confectioners.

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Illustrated and Descriptive Catalogue on application. Mention this advertisement.



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Iron Front  
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For Packing Cement, Talc, Plaster of Paris, Dry Paint, Foundry Facing, Lamp Black, White Lead, Phosphates, Barytes, Fertilizer, Alkali, Kalsomine, Sulphur, Soda Ash, Lime, Alum, Snuff, Soda, Brewers' Grains, Mineral Sand, All Kinds of Drugs, Powdered and Granular Materials.

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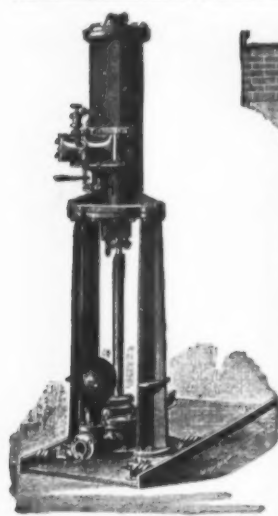
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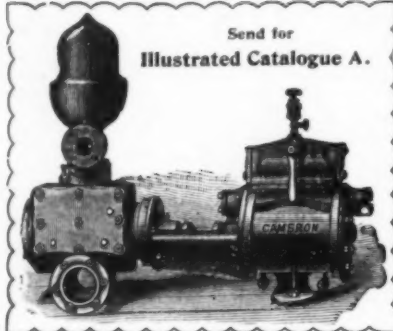
Artesian Well Pump.



Mining Pumps

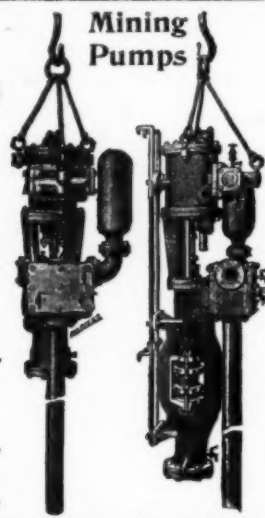
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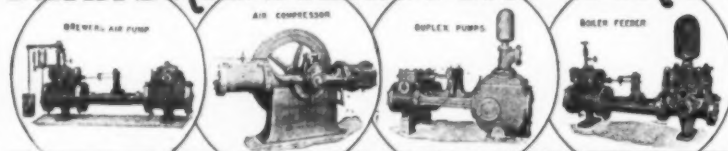
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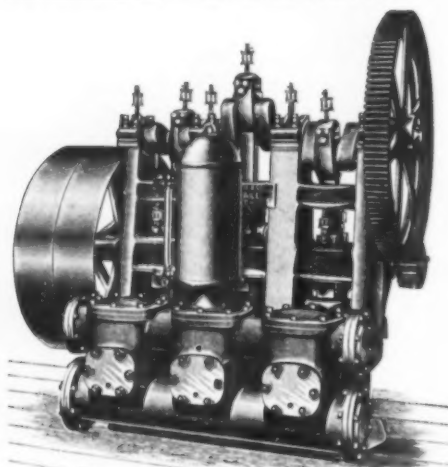
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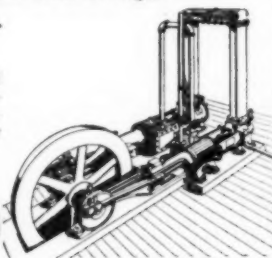
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Can Furnish Full Outfits  
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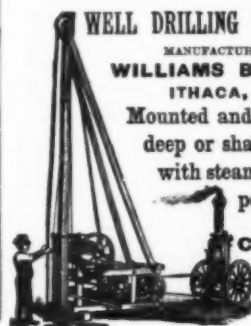
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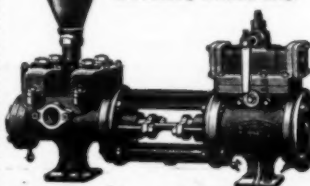
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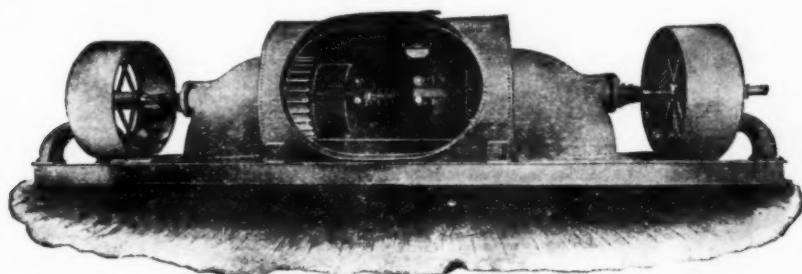
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BRASS CASTINGS — GENUINE BABBITT'S METAL  
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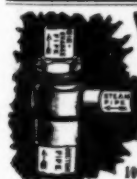
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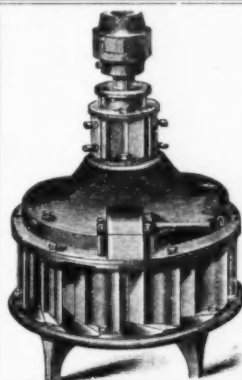
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**FIRE HYDRANTS**

With or without Independent Valves.

All Valves and Hydrants Furnished with Babbitt Metal  
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General Office and Works: INDIAN ORCHARD (Springfield), MASS.

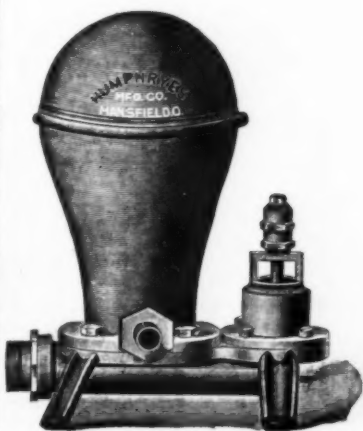
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The simple and effective operation of this machine,  
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makes it one of the best apparatus ever offered. We  
would like to send you a circular fully describing its  
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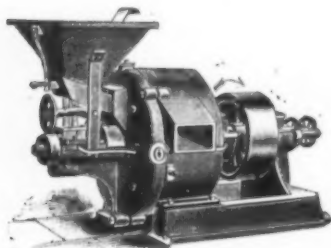


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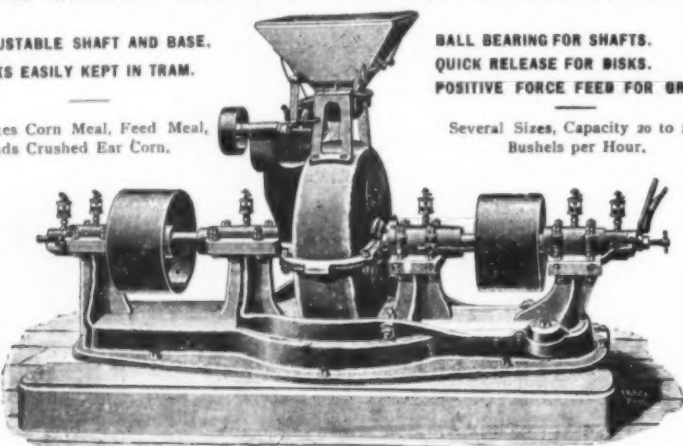
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ADJUSTABLE SHAFT AND BASE.  
DISKS EASILY KEPT IN TRAM.

Makes Corn Meal, Feed Meal,  
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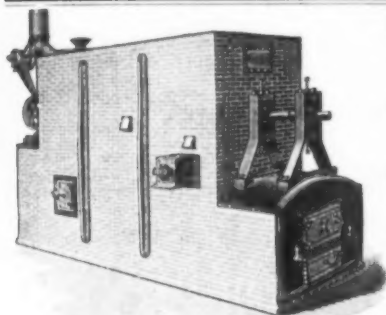
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Several Sizes, Capacity 20 to 100  
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We Make CRUSHERS and GRINDERS of all kinds. Write us about any special work you may wish to do.

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## The Wing Dryer and Calciner

Possesses Special Regulating Devices.  
Economically Handles Raw and Waste Products.

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## CAROLINE IRON WORKS,

Corner Caroline and Lancaster Streets,

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BREAKERS

Write  
for  
Prices.

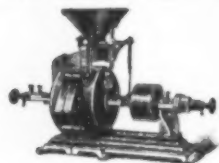
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When in need of **LEAD PIPE OR SHEET LEAD**

For Sulphuric Acid Chambers

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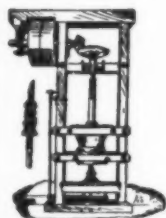
MANUFACTURERS OF

## FERTILIZER MILL MACHINERY.

Complete Plants Furnished and Erected.

WILMINGTON, DEL.

CRUSHING and GRINDING MACHINERY.



## The Robinson Patent Grinding Mill

Adams Centre, N. Y., September 16, 1896.

MESSRS. MUNSON BROS., Utica, N. Y.:

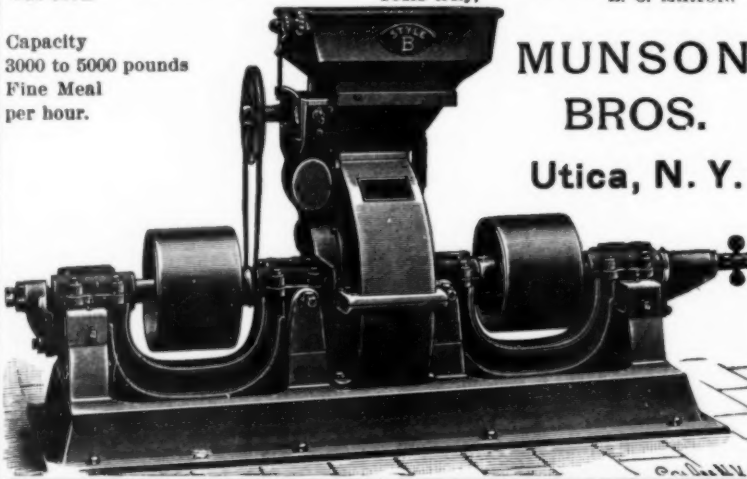
Dear Sirs—I have now used my Robinson Iron Grinder about two months, and can say that I would not give it for any mill on earth. I have used a Munson Under Runner, a Stevens & Sons Buhr Mill, also a Bowsher Steel Grinder, but would not give the Robinson for three new ones. I use twelve horse-power steam, and have ground 2100 pounds of corn meal per hour. It will grind oats so you cannot tell what they are. I use it for grinding custom work and making meal for my trade. You can grind any kind of grain to flour with it. I can grind from 1700 pounds to 1900 pounds of Western Corn per hour all day and make fine meal. I have never ground Rye on my mill but once; it will grind it all right. I have ground a good deal of new Barley, and it does a good job, and you know this is mean stuff to grind. The Robinson Mill has a very fine feeding arrangement, and the mill is very easily controlled, and after starting it requires no attention, only to keep it well oiled.

Yours truly,

E. C. MAXON.

Capacity  
3000 to 5000 pounds  
Fine Meal  
per hour.

MUNSON  
BROS.  
Utica, N. Y.



## BURR STONES

For all purposes  
Manufactured by us.

Also ROLLER MILLS, SMUT MACHINES and  
GENERAL MILL MACHINERY.

Established 1847.

B. F. STARR & CO., Baltimore, Md.

## CASTNER, CURRAN & BULLITT,

General Agents for the

## Celebrated POCAHONTAS - COAL.

Smokeless Semi-Bituminous

MAIN OFFICE:

326 Chestnut St., - PHILADELPHIA, PA.

BRANCH OFFICES:

1 Broadway, New York.  
Neave Building, Cincinnati, O.Board of Trade Building, Columbus, O.

70 Kilby Street, Boston, Mass.  
Terry Building, Roanoke, Va.4 Fenchurch Avenue, London, England.

35 Main Street, Norfolk, Va.  
Old Colony Building, Chicago, Ill.

SUPERIOR  
**COKE**  
AND  
**COAL**

## The Standard Coal Co., Brookwood, Ala.,

Produces the Best Foundry Coke in the South, and the Highest Grade Washed Blacksmith Coal. Our celebrated "Mill-dale Seam" of Coal is superior for steam purposes. This Coal is used exclusively by the Government on its war vessels Pensacola and Mobile.

FOUNDRY COKE AND BLACKSMITH COAL OUR SPECIALTIES.  
Correspondence from foundries, factories and users of steam coal invited.

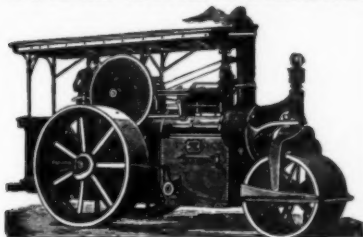
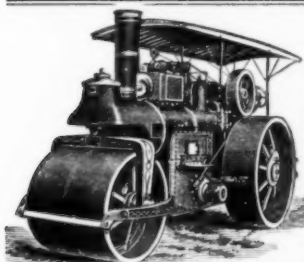
Our Coast Agents, MOBILE COAL CO., A. C. Danner, Presdt., MOBILE, ALA.





A. J. BECKLEY &amp; CO., Garwood, N. J.

**FLOURING MILL MACHINERY.**  
BUILT BY CONTRACT.  
ROLLER OR BUHR SYSTEM  
FRENCH BUHR MILLS  
14 SIZES AND STYLES  
OVER 20,000 IN USE. A BOY  
CAN OPERATE  
A COMPLETE MILL  
AND SHELTER LESS  
THAN \$100. REDUCED  
PRICES FOR SEASON  
OF 1904. EVERY MILL  
WARRANTED BOTH MILLS  
AND TAPE.  
NORDYKE & MARMON CO.  
86 DAY ST. INDIANAPOLIS, IND. U. S. A.

**STEAM ROAD ROLLERS.**THE O. S. KELLY CO.  
SPRINGFIELD, O.**"RUSSELL"  
STEAM ROAD ROLLERS.**

BUILT IN ALL SIZES.

FOR CONTRACTORS, CORPORATIONS AND MUNICIPALITIES.

RUSSELL &amp; CO., Massillon, Ohio.

JULIAN SCHOLL & CO., Agents, 126 LIBERTY STREET  
NEW YORK, N. Y.**THE BAILEY-LEBBY CO.****Fertilizer and Phosphate Machinery**  
A SPECIALTY.

Railroad and Mill Supplies, Engines, Boilers, Saw, Corn and Cane Mills.  
Rubber and Leather Belting, Hose, Packings, Pipe Fittings and Brass  
Goods, Wood Pulleys, Shafting and Hangers. A full stock of Plumbing  
Goods always on hand. Largest stock of Supplies South. Lowest prices.  
Prompt shipments. Plans, specifications and large illustrated catalogue furnished upon application.  
Try the B.-L. Co. Anti-Friction Babbitt Metal, the BEST for HIGH-SPEED machinery.  
CHARLESTON, S. C.

**PHOSPHATE MACHINERY & SUPPLIES.**

Engines, Boilers, Saw Mills.

Shafting, Hangers, Wood Split Pulleys, Steam Pumps, Centrifugal Pumps, Steel Rails, Spikes  
and Fastenings, a Full Line of Railroad Supplies, and a Full Line of Bar Iron,  
Iron Pipe, Valves, Fittings, Rubber and Leather Belts.  
Agents for CUMMER'S DRYER.

Write for our large Illustrated Catalogue. The Cameron &amp; Barkley Co., Charleston, S. C.

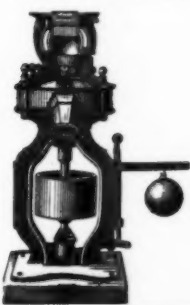
**M. F. ABBÉ,** Office, 804 Havemeyer Bldg., New York.  
Works, 26 Franklin Street, Brooklyn.

CONSULTING and CONTRACTING ENGINEER for

**Crushing, Grinding, Drying Machinery  
and Pebble Pulverizing Cylinders.**

FOR ALL KINDS OF MATERIALS.

DESIGNER and BUILDER OF MACHINERY for SPECIAL PURPOSES

**GREAT REDUCTION in PRICE of the Original  
BOGARDUS Patent  
Universal Eccentric MILLS**  
With Patent Improvements.

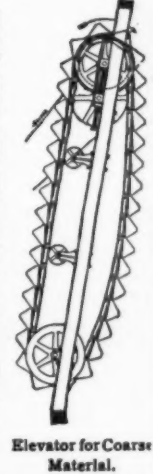
WILL GRIND ANYTHING DRY OR LIQUID; HARD OR SOFT.  
These mills are used for grinding all kinds of substances, dry or  
liquid, and having been used for a number of years, are well known to  
the trade and universally acknowledged as the Best Mill in the World.  
For Illustrated Catalogues and Price Lists, apply to the sole manu-  
facturers,

J. S. & G. F. SIMPSON, 26-36 Rodney Street.  
BROOKLYN, N. Y., U. S. A.Sole successors to J. W. THOMPSON, dec'd, late successors to  
JAMES BOGARDUS, "Patentee."**BEWARE OF IMITATIONS.****PERFORATED SHEET METALS MUNDT & SONS,**

For All Manufacturing Purposes.

88 and 90 Walker Street,  
NEW YORK.**McLANAHAN & STONE,  
Engineers & Manufacturers,**

Gayport Foundry, Hollidaysburg, Pa.

**ORE JIGS,  
IMPROVED WASHERS**For Phosphate, Iron, Manganese  
and other Ores.Elevator for Coarse  
Material.

The McCULLY ROCK AND ORE  
CRUSHER. Greater than the Greatest  
on Earth. Guaranteed to do more  
work with one-half less power than  
any other Crusher now known. Re-  
ceived two awards at the World's  
Columbian Exposition at Chicago,  
Medal and Diploma, the only awards  
given for this type of Crusher. Send  
for catalogue, etc. R. McCULLY,  
1324 Callowhill St. Philadelphia, Pa.

**American  
Diamond  
Rock Drill Co.**  
Diamond Pointed Core Drills.  
120 LIBERTY ST., NEW YORK.  
P. O. BOX 1442.

WE HAVE SOLD WITHIN 90 DAYS

**SIXTY  
GRIFFIN MILLS**to the largest Cement Manufacturers,  
among them being the

American Cement Co.  
Alpha Portland Cement Co.  
Lehigh Portland Cement Co.  
Bonneville Cement Co.

Vulcanite Portland Cement Co.  
Peerless Portland Cement Co.  
Glens Falls Portland Cement Co.  
Castalia Portland Cement Co.

because they believed that The Griffin Mill beyond doubt does  
the best possible work at the smallest possible expense.We will gladly send you full informa-  
tion, and very many American and Foreign  
references regarding it if you desire them.**BRADLEY PULVERIZER CO.,**

92 STATE STREET, BOSTON, MASS., U. S. A.

**SULLIVAN DIAMOND****Prospecting Core Drills,**FOR THE RAPID AND ACCURATE TESTING OF  
MINERAL DEPOSITS.

All Sizes of Drills in Stock.

OPERATED BY

HAND, HORSE-POWER, STEAM,  
COMPRESSED AIR OR  
ELECTRICITY.

"N" DRILL.



"M" DRILL.

**Sullivan Rock Drills,**

FOR

Mining, Quarrying, Tunneling.

CHANNELERS,  
GADDERS,  
QUARRY BARS.Contractors for Prospecting with  
DIAMOND CORE DRILLS.**SULLIVAN MACHINERY CO.,**

54 to 60 N. Clinton Street, CHICAGO, ILL.

Eastern Office and Works, Claremont, N. H.

Pittsburg Office, Schmidt Bldg., 339 Fifth Ave.

**Muirhead Machine Works,**

Drilling and Fishing Tools.

Oil, Gas and Artesian Well Supplies,

Muirhead's Patent Drive Pipe.

Sullivan Diamond Core Drills for Sale.

Diamond Setting a Specialty.

Correspondence solicited.

Mention this paper.

PITTSTON, PA.

# This time last year at PORT ARTHUR

The Kansas City, Pittsburg & Gulf  
R. R. was not completed.  
The dredging had not begun.  
The population was thirty-five souls.  
Only a few buildings had been erected.

## Within the past year

The Kansas City, Pittsburg & Gulf  
R. R. has been completed from Kansas  
City to Port Arthur, connecting the  
future seaport city of the Gulf with  
the district which produces 90 per  
cent. of the export and import food  
products of the United States.  
Within less than one year we have com-  
pleted nearly two miles of our seven  
and a-half mile canal.  
In less than a year we have added 1400  
to Port Arthur's population; put in  
extensive terminals; built a commo-  
dious passenger station; electric  
light plant; put a large addition to  
our hotel, "The Sabine"; built an  
export freight pier; sold over \$700,-  
000 worth of property; established  
two steamship lines, one to Liverpool  
and one to Mexican ports, and made  
the rapid growth of Port Arthur the  
marvel of the end of the century.

Port Arthur is the only active  
real estate market in the United  
States.

It is attracting attention of  
the entire country because it is  
the most logically located port  
in the United States.

### GO SEE FOR YOURSELF.

The only way to appreciate  
and understand Port Arthur and  
the influence behind it is to  
investigate personally.

For all information write to

**F. A. HORNBECK,**

Land Commissioner  
Kansas City, Pittsburg & Gulf R. R.,  
General Manager  
Port Arthur Townsite Company,

KANSAS CITY, MISSOURI.

## THE BRADSTREET Mercantile Agency

WAS ESTABLISHED IN 1849.

Is the oldest and financially the strongest  
organization of its kind, working in one in-  
terest and under one management, with  
more capital invested in the business, and  
expends more money every year for the col-  
lection and dissemination of its information  
than any similar institution in the world.  
Its reports are considered in the light of a  
guide by both investors and those contem-  
plating the granting of credit. In addition  
to a large corps of skilled employees, more  
than one hundred thousand correspondents  
contribute the result of their investigation  
and opinions. Subscriptions are annual, and  
may commence at any time the subscriber  
elects. Details as to prices and terms will  
be furnished upon application.  
CHARLES F. CLARK, President,  
Baltimore Office, Equitable Building.  
H. KERRHAW, Supt.

## WE ARE HIGH GRADE ENGRAVERS BY EVERY PROCESS

FINE MACHINE ENGRAVING  
A SPECIALTY.  
PLACE NO ORDERS  
TILL YOU CORRESPOND  
WITH U.S.

WE ILLUSTRATE CATALOGUES  
COMPLETE, OR GET OUT SINGLE  
CUTS ON SHORT NOTICE

THE  
BROWN-BIERCE  
COMPANY.  
DAYTON, OHIO.

### HELP WANTED.

Advertisements under this head are inserted  
free of charge for readers of the MANUFACTURERS'  
RECORD. Advertisements must not exceed five  
lines—about thirty words—and four insertions  
will be given without charge.

**WANTED.**—Traveling salesmen on salary or  
commission to sell our steel pens to offices,  
banks and stationers. Agents need apply.  
Address SPOT CASH PEN CO., Boston, Mass.

**WANTED.**—Capable, reliable, enterprising  
business man to take entire control of novel  
device for advertising. Small capital required to  
push device, not to buy it. Address ADVER-  
TISER, care Manufacturers' Record.

**WANTED.**—An expert candy and chewing gum  
maker. Address L. C. V., care Manu-  
facturers' Record.

**WANTED.**—An experienced and practical man  
in the manufacture of soap. Address  
SOAP, care Manufacturers' Record.

### SITUATIONS WANTED.

Advertisements under this head are inserted  
free of charge for readers of the MANUFACTURERS'  
RECORD. Advertisements must not exceed five  
lines—about thirty words—and four insertions  
will be given without charge.

**DIE MAKER.**—An A1 die and tool maker, well  
up in all modern improved dies and tools  
for hardware, novelty and bicycle work, etc.; also  
compound dies, automatic feeds, stops, jigs, etc.;  
am a draughtsman, age 32; twelve years' expe-  
rience in New England; can handle men; can  
start March 1. Address NEW ENGLAND, care  
Manufacturers' Record.

**WANTED.**—Position as architectural draughts-  
man; six years' experience in residences  
and office buildings. Address ADLAI OSBORNE,  
307 N. Graham street, Charlotte, N. C.

**A** YOUNG man of executive ability, has a man-  
ufacturing and mercantile experience of 18  
years in metal, wood and paint trades, as manager,  
salesman, buyer, cost clerk and accountant, is  
also familiar with advertising and catalogue  
work, has knowledge of mechanics and drafting,  
desires a position; best of references. Address  
H. H., care Manufacturers' Record.

**WANTED.**—By young man, twenty-four, situa-  
tion of some kind; eight years' clerical expe-  
rience; good references. Address C. G.  
HACKER, 113 Ashley Ave., Charleston, S. C.

**WANTED.**—Mechanical engineer, age twenty-  
four years, recent graduate of one of the  
leading engineering institutions of the country,  
with shop and drafting room experience, desires  
position of any kind in engineering; best of  
recommendations. Address ENERGETIC, care  
Manufacturers' Record.

**A** YOUNG man, good penman, double-entry  
bookkeeper and telegraph operator (exper-

enced), now railroading, desires to make a  
change; best references furnished. Address M.  
M. W., 258 Granby street, Norfolk, Va.

**WANTED.**—Position as gang filer; can give  
good references. Address J. W. Gay, Suf-  
folk, Va.

**SALESMAN** with an established trade with the  
hardware store and house furnishing trade  
through the Southern States wants a good paying  
side line. Address SIDE LINE, 519 Freemason  
street, Norfolk, Va.

**A** CHIEF ENGINEER, having many years' expe-  
rience in charge of compound, triple and  
quadruple expansion engines, 2000 to 20,000 horse-  
power, also electric, hydraulic and refrigerating  
machinery, is open for an engagement. Address  
H. J., care Manufacturers' Record.

**A** THOROUGH, energetic business man with  
several years' experience in purchasing de-  
partment of a large car manufacturing company  
desires position as buyer or assistant to manager  
of a railroad or manufacturing company. Address  
Hustler, Manufacturers' Record.

**WANTED.**—Position by experienced electri-  
cian as inside wireman, also switchboard  
builder and machine setter; understand all kinds  
of bells and gas lighting systems; best of reference.  
Address W. R. C., care J. E. Duval, Charlotte, N.  
C.

**A** RCHITECTURAL iron and bridge work.—  
First-class architect and technical engineer,  
with great experience in architectural and iron  
construction work, wants a position. Address  
C. L. G., 1730 Eastern Ave., Baltimore, Md., care  
L. A. Breeback.

**H**OSIERY SUPERINTENDENT; am 28 years  
old; have 15 years practical experience in  
the manufacture of ribbed and seamless hose and  
half hose; seven years as superintendent; under-  
stand plain, three-quarter and full automatic  
machines; now employed, but wish to change;  
A1 reference. Address B. R. L., care Mfrs.  
Record.

**WANTED.**—Situation by practical steam en-  
gineer; ten years' experience, all kinds of  
engines, simple and compound; can furnish best  
references; temperate; will go anywhere; now  
employed. Address S. L. HILLS, North Adams,  
Mass.

**WANTED.**—Situation as boss cutter or cutter  
of velvets, velvetens, plush or corduroy;  
have had 20 years' experience. Address JOHN  
TAYLOR, 27 Tyler St., Lowell, Mass.

**WANTED.**—Situation as manager or superin-  
tendent of some manufacturing plant or  
sawmill; 15 years' experience in the manufactur-  
ing business; good executive ability; capable of  
taking complete charge of such a plant; best of  
references; sober and reliable. Address W. O. R.,  
care Mfrs. Record.

**WANTED.**—Miller of 17 years' experience as  
head miller in late improved mill would  
like to correspond with some mill company who  
would give fair wages to miller capable of taking  
charge of mill of 100 to 1000 bbls. capacity. Ad-  
dress FLOUR MILLER, 222 Gillis St., Kansas  
City, Mo.

**WANTED.**—Young man of experience wants  
position as stenographer or assistant book-  
keeper; good references; moderate salary to start.  
Address C. W. B., 403 Fatherland St., Nashville,  
Tenn.

**WANTED.**—Situation as saw mill manager  
and operative with 18 years experience,  
prefer the South. P. O. Box 77, Easton, Md.

**WANTED.**—By A1 practical die, tool and  
jig maker. Has designed and made dies,  
tools, special machinery, fixtures, etc., for clock,  
typewriter, sewing machine, bicycle and general  
hardware work. Well educated, best of refer-  
ences capable of taking charge. Address DIE  
WORKER, care Manufacturers' Record.

**TRAVELLING SALESMAN** throughout N. E.  
and Middle States, with permanent office on  
Broadway, N. Y., would like one or more good  
novelties; exclusive agency in above territory  
preferred. Address P. O. BOX 1048, New York,  
N. Y.

**WANTED.**—A position as bookkeeper by an  
experienced man of forty-five; now has a  
position but desires to change; no set of books  
to intricate; best of reference given. Address  
"C. J. B.," 217 N. 21st St., Birmingham, Ala.

**WANTED.**—By a sober, energetic and reliable  
young man a position in any good Southern  
enterprise that will insure a fair salary; can fur-  
nish first-class references. Address J. M. R.,  
care Manufacturers' Record.

**THE LINK** QUEEN CITY PRINTING INK CO.  
CINCINNATI, O.  
WITH WHICH THIS PAPER IS PRINTED.

**Engravings**  
FOR THE MANUFACTURER, PUBLISHER, PRINTER  
BEST WORK ~ PROMPT DELIVERY ~ FAIR PRICES ~  
**THE BALTIMORE ENGRAVING CO.**  
BALTIMORE, MD. U.S.A.



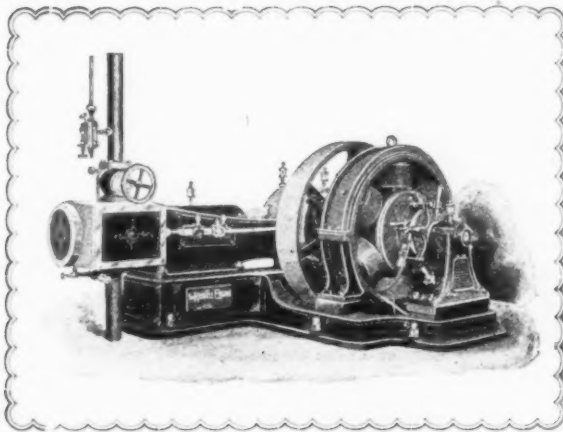






# DIRECT - - DYNAMO CONNECTED

For Lighting and Power.



The "WOOD" Dynamo embodies all the latest improvements in electrical machinery, among the most important being quick response to varying conditions of load, with sparkless commutation, voltage remaining constant, at the same time having highest attainable efficiency, generous commutator and brush surface permitting the use of carbon brushes, insuring long life.

## FORT WAYNE ELECTRIC CORPORATION

FORT WAYNE, INDIANA.

### BRANCH OFFICES:

New York City, 115 Broadway.  
Chicago, Ill., 621-625 Marquette Bldg.  
Philadelphia, Pa., 104 The Bourse.  
Boston, Mass., 17 Federal St.  
Rochester, N. Y., Powers Bldg.  
San Francisco, Cal., 18 Second St.  
Pittsburgh, Pa., 918 Park Bldg.

New Orleans, La., 715 Perdido St.  
Omaha, Neb., 1403 Farnam St.  
St. Paul, Minn., 207 Newspaper Row.  
Cincinnati, O., 402 Neave Bldg.  
St. Louis, Mo., 321 Security Bldg.  
Atlanta, Ga., 25 Marietta St.

Export Department, 115 Broadway, New York City.

"PURITY—SOLIDITY—DURABILITY."  
**MITCHELL TEMPERED COPPER CO.**  
CORY PA.  
COMMUTATOR BARS AND SEGMENTS.  
Heavy or Light Pure Copper Castings.

The United Electric Improvement Co.

19th Street and Alleghany Avenue,  
PHILADELPHIA.

ELECTRICAL EQUIPMENT OF ALL KIND.

See large advt. in first issue of month.

**SHAWHAN-THRESHER ELECTRIC CO.**

Electrical Engineers and Builders of Electrical Machinery,  
DAYTON, OHIO, U. S. A.



### THE BURR PATENT STEEL SAFETY LIFT BLOCK

A Perfect Self-Locking Rope  
Tackle Block.

Runs as freely as an ordinary  
rope tackle block.  
Holds more securely than a  
chain block.  
Locks instantly and does not  
cut the rope.  
Allows the load to be lowered  
safely and slowly, the operator  
using only one hand.  
Cannot stick nor jam when  
the load is to be lowered.

"I have tested the Burr Self-  
locking Steel Tackle Block and  
find it the most practical, quick  
and reliable safety lift I know  
of."

J. C. DEBES,  
Supt. of the C. & G. Cooper Co.,  
Mt. Vernon, O.

Adopted by the Penna. R. R. Co.

Send for circulars and prices.

The BURR MANUFACTURING CO.  
823 Society for Savings Bldg.,  
Cleveland, Ohio, U. S. A.

### SET AND CAP SCREWS

**CINCINNATI SCREW & TAP CO.**  
STANDARD AND SPECIALS.  
CINCINNATI, O., U. S. A.

FOR ENGINES AND MACHINERY.



### The ORATOR

AND  
Improved Hummings

solid back dust transmitters  
in Wall, Desk and Cabinet  
Styles. They are Conven-  
ient, Durable and the best  
of talkers.

A trial will convince anyone  
of their superiority on either  
short or long distance work.

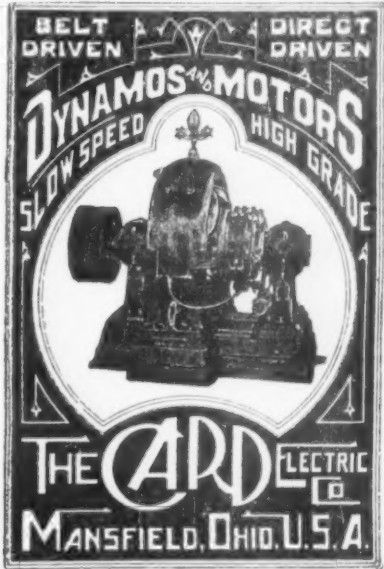
Anyone can make an instru-  
ment that will work well at  
first, but to produce one that  
will continue to meet every  
proper demand is quite an-  
other problem.

The ORATOR will.

MANUFACTURED BY

The RAWSON ELECTRIC CO.

ELYRIA, O., U. S. A.



The Electrical Engineering & Supply Co.  
Hunt Building CHARLOTTE, N. C.  
SOUTHERN ELECTRICAL ENGINEERS.

THE NAME OF  
**WESTINGHOUSE**  
IS A GUARANTEE.

The old way  
was good  
enough

for your fathers, but it's not good enough for you, if you  
mean to succeed. Machinery should be driven by electricity.  
Arc Lamps, Switches, Meters, Motors, Lightning Arresters,  
Electric Locomotives. Everything electric.

New York, Boston, Chicago, Philadelphia, St. Louis, San Francisco,  
Buffalo, Syracuse, Atlanta, Tacoma, Mountain Electric Co., Denver. For  
Canada, Ahearn & Soper, Ottawa. Westinghouse Electric Co. Ltd. 32 Vic-  
toria St. London.

Westinghouse

Electric & Mfg. Co.  
Pittsburgh, Pa.

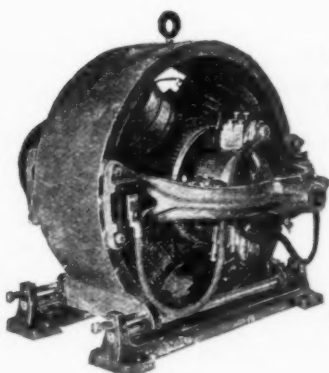
Westinghouse

## Don't Make a Mistake.

A comparison of merits of different makes  
of Elevator Buckets will always result in a  
decision that the "SALEM" has no equal for  
long and satisfactory service. Send for price list.



The **W. J. CLARK CO.**, Salem, Ohio, Sole Manufacturers.



## ELECTRIC Motors AND Dynamos

Lighting and  
Power Transmission  
Plants Installed.

**Commercial Electric Co.,**

111 Capitol Ave., Indianapolis, Ind.

## SMETHURST & ALLEN,

W. A. SMETHURST.  
RODNEY D. ALLEN.

1210 BETZ BUILDING,  
PHILA. PA.

Long Distance Telephone 4899.

## Electric Railway Contractors

Complete Electric Light and Power Installations. Electric Railway Work a Specialty.

## WESTERN ELECTRICAL SUPPLY CO.

10 & 12 N. Ninth Street, ST. LOUIS, MO.

ELECTRICAL MACHINERY AND SUPPLIES.

Complete Electric Light and Power Installation.

Write for Catalogue.

## Stanley Electric Manufacturing Co.

PITTSFIELD, MASS.

HIGH-GRADE ELECTRICAL APPARATUS

FOR

Long Distance Transmission and Central Station Distribution.

GENERATORS, MOTORS, TRANSFORMERS and SWITCHBOARDS.

BRANCH OFFICES:

ANDERSON, S. C. NEW YORK, 39 Cortlandt St. BOSTON, Equitable Bldg.  
CHICAGO, Marquette Building. SAN FRANCISCO, 106 Market St.  
ST. LOUIS, Western Electrical Supply Co.



### WE CLAIM THE FOLLOWING MERITS FOR JENKINS BROS.' VALVES:

1. Manufactured of the best Steam Metal.
2. No regrounding, therefore not constantly wearing out the Seat of the Valves.
3. Contain JENKINS DISC, which is suitable for all Pressures of Steam, Oils and Acids.
4. The Easiest Repaired, and all parts interchangeable.
5. Every Valve Tested before leaving the factory.
6. ALL GENUINE stamped with Trade-Mark.

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## Lunkenheimer's Steam Whistles

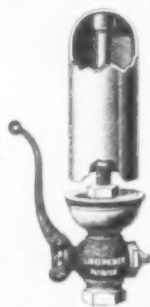
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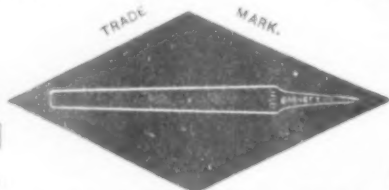
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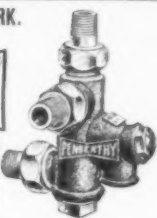
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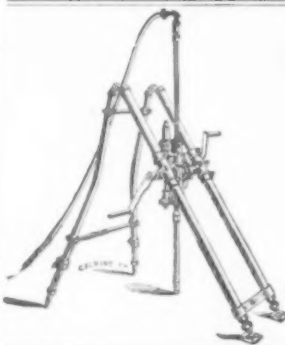
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